

## 6. Learning Capital

Today's world—to put things in simplified terms—is a collection of people who are in different situations. A big group called the lower classes have a small set of possessions that they store in rented rooms or, in more abject living conditions, carry around with them on the streets. In the broad middle class, which increasingly declines in their resources compared to the rich (as the development of income distribution in the chapter on economic capital has shown), there remain only few people today who can protect themselves against all circumstances. And there are even fewer people in the upper class who can neither survey all their possessions nor waste them because these possessions have long exceeded wealth acquired by tedious labor. Money as capital here seems to work for itself and proliferate infinitely. Such possessions may also come to ruination, but it would require malicious work against one's own inheritance.

Sometimes such images help to describe the state of things in such a way that we can immediately classify ourselves according to them. This applies to most people: the more ownership increases for the upper class, the weaker the possibilities become for participating in the real wealth of the world for all others. Owners secure the conditions of ownership through inheritance; this ownership is on a rather small scale for most people, but for the elite in the upper crust, it represents a wide variety of possibilities. It is primarily through education, i.e., through the use of learning capital, that opportunities for advancement can present themselves and an intermixing of all positions can happen, even if realistically we should not have high expectations here.

Bourdieu brought together learning and education under the idea of cultural capital. This made complete sense in the past because learning is always an expression of cultural relations between people. But with the capitalization of culture, especially education, the sciences, and learning, in the past decades it has increasingly been the case that learning capital has risen to its own distinct form of capital, which exceeds cultural capital through its own formation and maintains distinct linkages with economic and social capital, relates to cultural capital in a contradictory way, and also has distinct features compared to body capital. Learning capital has thus become its own form of capital.

Such learning capital is often referred to as “human capital,” which is a concept I already criticized in chapter 1. Keeley (2007) describes this capital from the point of view of the OCED as knowledge, qualifications, skills, and other characteristics that enable the individual to lead a life with personal, social, and economic successes, and create well-being. This is best achieved by raising the educational level. The OCED sees the opportunities for such “human capital” primarily

- in an increase of the returns on education, which is evident in higher earnings for graduates with higher levels of education (*ibid.*, 37).
- in the fact that income benefits in the case of higher “human capital” significantly decrease the risks of unemployment (*ibid.*, 38),
- in increased economic growth through scientific and technological innovations, which is a benefit for individuals, insofar as general prosperity may rise, and which can also open up countless other non-economic opportunities for action (*ibid.*, 40).

Nevertheless, the concept “human capital” is extremely unfortunate, and I will no longer use it in what follows.<sup>1</sup> It suggests that human beings themselves appear capitalizable and is thus over-generalizing. This runs counter to the differentiated approach that I pursue because in such an approach one can discern various forms of capital that each express partial aspects of human forms of action that are directed at exchange and commodity-money relations, but which in no way can point to a theory of human capital in the form of the characteristics attributable to a person. The forms of capital, as I use them, always express relationships between people; they do not reduce them to the characteristics of natural persons. Human beings—and this seems to be a fundamental condition for an academic discussion of forms of capital—are not a mere factor or just natural persons with certain characteristics; they are always interactively and systematically connected with others, and this condition manifests itself in practices, routines, and institutions in the form of capitalization. Talk of “human capital” in contrast presents a strong oversimplification in everyday use or a merely economic category with a narrow definition. “Human capital” thus always dissolves upon closer inspection and in-depth analysis into different forms of capital.

Education and learning are thus as much of an opportunity as a risk. Education as an individual obligation to participate in society is a modern ideal. Viewed in rational terms, education could provide a means to balance economically unequal groups and help overcome social and cultural differences. The poor person can rise through education and achieve a significant income; the wealthy person also has to be educated if they are to sensibly manage and maintain their wealth and not quickly fall into ruin. But how real is this ideal? I want to connect it with four fundamental characteristics that Talcott Parsons (1982) used to try to describe the apparent “universal” conditions of social evolution.

<sup>1</sup> See also p. 38 f. and 43 ff. The German “Doublespeak of the Year Award” in 2004 was for “human capital.” The explanation was that this concept is economically reductive and thus makes workers appear one-dimensional.

- 1) *Differentiation*: social tensions during development can be reduced through differentiation or the creation of different social roles in the individualization of people, and the distribution of power relations can be limited so that optimal development remains possible.
- 2) *Adaptive upgrading*: everything is developing and thus has to be maintained and thought of in a mobile and innovative way: the level of expectation, the distribution and making available of resources (capital, natural resources, technology, purchasing power, etc.). The more developed countries demonstrate the opportunities for mobility, the more this economic approach and lifestyle will spread worldwide. Today we also talk about *globalization* as a way of expressing this theory of mobility.
- 3) *Participation and value generalization*: a differentiated, mobile, and innovative society requires a high degree of mediation between its parts. Only a high degree of participation enables a sufficient degree of legitimacy for decisions that are made centrally.
- 4) *Inclusion in the sense of institutionalization of conflict resolution*: in addition to participation, there has to be an institutionalization (control, regulation, legalization) of conflict resolution in order to minimize problems in the development process and preserve legitimate decisions.

Parsons' position is very farsighted because although it does not describe a *universal* "rational solution" to all world problems,<sup>1</sup> it points out crucial ideal points of the actual (empirically verifiable) development of the past decades. What is really important is that it does not describe reality "in itself" once and for all but only provides criteria that seem notable for further investigating social developments. If we relate such investigations from the more general claims in modernity<sup>2</sup> to the conditions and possibilities regarding education today, strongly ambivalent or contradictory positions appear in this image of development. Education always takes place within the paradox of the social granting of educational opportunities and the individual self-will and possibilities for using these opportunities: so, I want to reinterpret the characteristics of modern development as they are set out by Parsons:

- 1) *Differentiation*: given our capitalistic orientation, education and learning today are mainly constructed as individual opportunities, and realized on the basis of one's own power, reason, and will, for attaining degrees and certificates that lead to a differentiation in a world of divided labor and thus to a division between higher and lower positions. The opportunities

<sup>1</sup> For a supposedly universal description it leaves too many points out; it also naturalizes a very idealistic construction of development too much and is one-dimensionally oriented toward growth.

<sup>2</sup> Modernity has long since developed into postmodernity (see Bauman 1995), liquid modernity (see Bauman 1995), or reflexive modernity (see Beck 2009). Contradictions in development are already contained here in the observer's construct of development.

for a real differentiation distributed according to principles of equality, or even just promoted according to appropriate criteria that actually enable growth for *everyone* in as equal ways as possible, remain in great parts unrealized.

- 2) *Adaptive upgrading and mobility*: education is strongly connected to mobilized agents and institutions, which should actually be promoted as learning environments and not merely perpetuated. Tensions have arisen here: innovative, better-equipped, privately financed, expensive, and even luxurious schools, which highly support individuals and provide assistance until the best degree is attained, are opposed to state-funded, badly equipped schools that select early and provide for limited mobility, where a bad degree, due to economic, social, and migration conditions, from a bad school awaits at the end. The opportunities are directly dependent on social and economic origins, and countries differ only gradually in this regard. Even in wealthy countries the opportunities are very unfavorable when compared with their economic power.
- 3) *Participation and value generalization*: participation by everyone becomes less likely the more the educational environments are determined and controlled by financial resources that only offer the best participation for those in better positions. Participation is thus reduced to protecting the interests of certain circles.
- 4) *Inclusion in the form of institutionalization of conflict resolution*: the school which is always already divided operates as an institutionalized stabilizer of inequalities particularly in those countries that already divide the school into classes through different forms and traits of education at an early age, or that, like many other countries, establish a private school system for the more affluent classes. Here, conflicts are avoided in the reification of certain educational opportunities and limited interests of mainly the ownership classes.

All four points also produce, at the social level, when they are maintained one-dimensionally in the sense of the preservation of property-oriented interests, sustained problems for both economic growth and social development. These problems result in particular from the fact that differentiation and individualization, with the qualified degrees thereby obtained and the many people who remain in limbo without qualifications, no longer suffice to effect adequately broad innovative economic growth or guarantee participation in the consumption of prosperity for all.

With regard to motivating achievement and promoting high individual health awareness and concern for oneself, missing or poor learning outcomes represent a major obstacle to future development. And lack of participation also indicates another danger that can result in a lack of willingness to engage

in democracy. The disenchantment with politics despite democratic conditions is particularly prevalent among those who have experienced few educational opportunities. Institutionalized promotion of better educational opportunities for all would thus be an excellent way to prevent conflicts that threaten democratic social development and do not sufficiently promote individual opportunities for just participation. This chapter will consider such problems.

## 6.1 The Origin and Effects of Learning Capital

The forms of action related to education can in my view be distinguished into three large groups of educational relationships, which will be investigated in what follows in order to identify learning in its changing environments:

- 1) Learning in the form of imitation, emulation, and modification, as it is described primarily in the *master-newcomer* relationship.
- 2) Learning as education and growth of collective and above all individual abilities and skills.
- 3) Learning under the conditions of the capitalization of learning and education (learning capital).

### 6.1.1 Learning in the Form of Imitation and Modification

Imitation is an ancient form of learning which humans have used since the beginning. Children and young people, provided that they can even be distinguished from small or large adults, imitate activities and behaviors that they see and experience. Such imitation arises from something that is essential to growing within a culture because general cultural and behavioral cooperation and communication are retrieved from it (mimicry, gesture, language, activities). There may always be a degree of variation built into such imitation, but in the end this degree of variety must be performed in a co-evolutionary way so a cultural and social group can still communicate. If, for example, children invent new words, they have to share them with their parents or the social group in order to interact cooperatively with each other. Interaction is the prerequisite for social reproduction and social cohabitation. Early in human history, forms of differentiation are already active that are dependent on the respective developing division of labor. Such division of labor exists in families, clans, and groups: but it also intersects with social circumstances in the emergence of particular activities up to and including professions. In early human history, all of this remains very local, but it is already in essence quite varied and legitimized in social praxis through action and its results. The model of

imitation is implemented in particular in learning and education where a qualified master encounters a newcomer and the surrounding community itself can be seen as a field of praxis (*community of practice*).

In terms of results, this kind of learning is more strongly fixated on the preservation of already existing knowledge than on rapid innovation. This expresses itself in the fact that in these practices, routines dominate, as do rituals at the level of action, which strengthen norms and values that are acted out as constraints on action, groups, and the self in order to maintain existing power relations and life circumstances. Even if the “eternal return of the same” strongly shapes such societies, modifications through more or less accidental deviations, inventions, or new resources such as natural products or processing techniques are possible and desirable. But such change is always experienced through a cultural whole and has to be established in the context of the prevalent norms and values. Learning as a processing technique and modification take place under a strong orientation toward production in an accepted division of labor that leaves little room for individual development and differentiation. This has the positive effect that existing practical knowledge can be passed on very well, but it has the disadvantage of a less mobile and dynamic professional world and life-world. That is why age generally has a privileged point of view on things and learning according to a model follows the experiences of the group more than the desires of the individual.

Overall, individual success in learning in these structures enables social success. This is both a reward and recognition in social obligations so individual freedom is neither highly valued or valued in a special way as a cultural value.

The master-newcomer relationships function particularly effectively in societies that have developed language in the form of signs and symbols to such a level that actions occur in constant and uniform practices and routines with certain continuously shared values and norms in order to create institutions with legitimized forms of organization. In generalized terms, there are symbolic constructions of reality that are initially mediated primarily orally and then later in writing. The slowdown in the development of learning, since the inertial forces in the privileging of the master are very strong, ensures social success that relies on what is tried and tested. Confucianism in China is an important historical example of this because it was able to check all newcomers according to the image of the master but also seemingly provided everyone the opportunity to participate in the associated emergence of a ruling bureaucratic class. In the European middle ages, this model was represented in particular in monasteries, which could be operated collectively and separated from the rest of society because novices and masters set themselves

off from the outside through their seclusion. The announcement of the exclusivity of distinct access to knowledge leads at the same time here to teaching from the pulpit.

Alongside religious exclusivity, there also arose exclusive occupations with their own master-newcomer models. Training in manual labor especially was always shaped by strict regulations. Historically, such models of learning and education are the basis for procedures for the division of labor, but they function widely primarily for simple and physical labor that offers little room for free action or is characterized by precise work processes. By distinguishing the different areas of mastery, into the areas of the profane and the sacred, separate elites could also emerge who produce their respective specific techniques and rituals and a certain secret knowledge that can only be passed on orally and confidentially. Certain specific technical terminology in professions (e.g. medicine) is rooted in this, which makes it impossible for the untrained to enter the world of mastery without guidance and certified testing.

This master-newcomer model continues to work primarily in vocational training today. It appears, for example, in approaches such as *cognitive apprenticeship* or *situated learning*, which also refer complicated knowledge back to practices and routines that can be developed in a controlled way in technical terms, imitated, repeated, applied, and evaluated through demonstration and emulation. This ensures in particular that the newcomer does not lose any of the master's practical knowledge.

### 6.1.2 Learning as Education and Growth

Early in human history, people already became aware that symbolic representations could replace and supplement immediate and direct imitation. In ancient Greek, people distinguished not only between *theory* and *praxis* but also between *poiesis* (the concrete production of things and making that had a purpose) and *techne* (the procedures and tools for production of arts and crafts).<sup>1</sup> Aristotle especially stresses teachability with regard to *poiesis* because individual steps can be described precisely here. This suggests the master-newcomer model. He sees *praxis*, however, as a purpose-free space for independent, creative development where action must unfold freely in leisure, art, and reflection on the world in order then not only to be a description of the world in theory but also a normative imparting of meaning to the world. It was debatable for the Greeks where the meaning of the world came from, whether it was from external ideals as in Plato or humans themselves as with the Sophists; however, what was certain was that only free citizens could oc-

<sup>1</sup> See Jaeger (1994) for a comprehensive and detailed introduction to this topic.

occupy themselves with such meaning whereas the slaves had to carry out *poiesis*. In the inheritance of antiquity, which has often been invoked primarily in the ideas about education in the West, it is fundamentally clear that people have to assert themselves in theory and practice by means of reflection on themselves and their development through education and training in order to be able to *form* themselves as social, political, and communal beings.

Antiquity returned again in the West in modernity particularly in the Enlightenment where the idea was taken up that the freedom of the pursuit of knowledge from dependence on the concerns and needs of productive manufacturing was essential to human development. Ideas about education arose from “liberal arts,” which could be understood as not being bound to purposefulness, in order to celebrate education itself as a promotion of higher consciousness in the world. The more the sciences at the same time freed themselves from narrow theological objectives and medieval feudal thought, the stronger a form of education emerged that not only a master could lay claim to but that had to be constructed in symbolic representations in a broader and deeper way. This produced a new theoretical world, which on the one hand separated itself as a theoretical world from practice and could unfold its own rules and areas of action (the birth of the so-called *soft sciences*); but on the other hand, however, it also referred to practice (the so-called *hard sciences*, particularly the natural sciences and medicine) where it increasingly investigated the object itself and was not simply dependent on the immediate usefulness of certain current ideas. In symbolic representations, people initially actually believed that the world could be represented accurately if people only researched long and hard enough. But one has to recognize today that there may be a lot of theoretical justifications, but they do not have equal validity in terms of interests or actual empirically verifiable processes and results. The rift between justification and validity is one difficulty, and the other is the rift between legitimation and truth. Not everything that is justified can also already be recognized as valid in culture and the sciences (consider the example of Galileo). Something is legitimate if it gains access as symbolic representation to the sanctioned textbooks and lectures and if people expect it to be true without, however, it being immediately and obviously discoverable outside and outside of a theoretical construct. In this respect, knowledge in its validity and legitimacy is always bound to power and domination that enforce certain knowledge and accepted truths.

When learning, people are supposed to believe what is being represented, but truth changes over time, although the hard sciences have been able to create significant advantages in the verifiability of valid knowledge through strict conventions in the procedures of intersubjective and objective confirmability and justification.

The triumph of representative knowledge is reflected not only in modern theories of education but also in school subjects and the success story of



schools and colleges. Education separates itself from individual masters and newcomers and collectivizes them in a college, which is a *scientific community* with proven scientific literature backing it up, and a student body, which expects a high degree of general education at school and scientific education in college depending on the specific orientation of the school or college. A single master can no longer deliver this; rather, a representative community of teachers stands for the comprehensive breadth of grounds and for the quality of education.

The major drawback of this representative learning or education is the artificial distinction between theory and practice. Theory for its part has become so comprehensive in the variety of possibilities for justification that practice can only follow it, i.e., often years after one's training, in order to apply the theories that were learned previously. But because humanistic education is supposed to deliver more than just an ability to apply knowledge, since education here is supposed to be a general orientation for all kinds of knowledge and all areas of action, such a division in the emergence of the Enlightenment and modernity does not appear problematic. One has to take detours and expect longer times for education.

Learning as education and growth no longer happens here according to a master-newcomer model but manifests itself as schooling. In place of family education, in which further relations, the close surroundings of the community and the city, other children, and regional, national, and primarily religious culture are included, public and private educational institutions have now emerged, which no longer are supposed to address certain youth—as the monastery schools previously did—but increasingly establish themselves as public school systems. Such schools operate in a tension that is no longer just produced by the parents (*in loco parentis*) but is understood socially and religiously as a normative force between parents and the public. Ideally, these forces are supposed to work together, but in reality, they primarily contributed to domination-based knowledge of social positions, which could only be dissolved again at the end 19th century with the start of connecting democracy and education (cf. Garrison et al., 2016). The progress of schools thus followed social and cultural development. It was constructed in modernity primarily on apparently solid norms and values of a world that is both nationally unified and class-oriented and contains a division of labor. In the change to liquid modernity it appears as increasingly contradictory and ambivalent in its ideas of education (see for example Kalantzis & Cope, 2008, Popkewitz et al., 2001 for an introduction).

In this development of schools, there are voices even today that want to preserve education in the old sense of representative knowledge. This is a very uncertain undertaking: in the art of living in liquid modernity, it is always a positive goal to develop an aesthetic style that preserves and expresses a

comportment toward comprehensive education, although the educated person knows on the basis of their education that any education is limited. A kind of education arises here where one knows how to distance oneself from and qualify one's own education with self-irony (see Rorty, 1989). However, on the other hand, education is more and more becoming an implementation of distinctions that divide the educated from the uneducated. Here, concern for education appears as "care for oneself," as care for one's status, habitus, and as recognition of one's renunciation of other pleasures in the acquisition of knowledge. Because education cannot be acquired quickly against the background of this ambivalence, the educated tell their students, with another strategy for distinguishing themselves, that they will later understand how education according to use, beauty, or pleasure "really" is. But they can hardly make adequate promises here about the uses that a broad education will have for later jobs. Does it make sense to learn languages that people no longer speak? Does it make sense to learn a music instrument if one does not want to be a musician or music is a pursuit that does not pay well? Does it make sense to consider historical forms of society if one wants to become a physician? There are so many questions here and so few answers. This is because the significance of a broad education lies in finding meaning and happiness in life and wanting to understand more about life without needing this to lead to a professional occupation. A question nevertheless arises from the perspective of learning capital that has become more and more important: who can still afford to pursue such a broad education in this way given our limited time?

A further devaluation has also taken place: today, education is no longer a criterion or guarantor of progress. The humanistic ideal of education has always had two particular weaknesses: (1) A comprehensive education can only be acquired gradually so it takes a lot of time and requires a high degree of effort and strong motivation on the part of the learner. (2) The higher and more comprehensive the education is supposed to be, the more it is directed toward elites who can even afford such education and want to have it and whose language then becomes incomprehensible for most people.

Both conditions can only be fulfilled broadly by the ownership classes so education is increasingly experienced as a privilege in bourgeois modernity. This contrasts with the idealistic universalistic hope that all people could be "improved" through education. This is precisely the biggest illusion of this approach. Education is not just a purpose-free good but can also produce and cement prejudices. Western education in particular has often been a prototype for hierarchization, colonization, missions, gender repression, xenophobia, and the constant striving to know more than others. Eastern education with Confucianism is the same only with different contents. Education therefore has to be understood increasingly in history as a varied, contradictory, and uncertain thing:

- Educational diversity allows for choices whose evaluation is increasingly heterogeneous because of social groups and their different interests. Education as a long language game of appropriation of diversity under unified key points transforms itself into a diversity of thinking that is no longer unified. There is also no inevitable progress here in progressive education according to school years. Learners can continually improve their knowledge, but this does not guarantee them a permanent “complete” education. Education in school can only be exemplary and can only in principle enable life-long learning as a methodological expertise but can no longer be reduced to a comprehensive catalog of knowledge that putatively represents the whole of education.
- Education has thus become contradictory because most educational content itself contains contradictions. The more universalizations and the grand meta-narratives of modernity collapse, the more different interest and power groups appear in the process. Even the natural sciences and technical knowledge can always be interpreted in a relativizing way at least in terms of their consequences for the environment and ethical questions while their knowledge remains secure because of high conventionality.
- Education is ambivalent because all educational content already contains the possibility of its devaluation. Education is combined here with knowledge in an ambivalent way. The more social development produces an information society in which knowledge becomes mere information whose background one hardly has any knowledge of (see especially the flood of information in mass media and on the Internet), the more the hope declines for a kind of education that would be able to save us. The ambivalence that we feel in today’s education leads to a transformation of education to knowledge. The concept of knowledge appears more neutral so opposed positions and statements can be placed alongside each other without the needing to appear ignorant in the sense of a comprehensive worldview. Just the grand narratives of education have been lost in liquid modernity; in the transition to knowledge people with “universal” educations have become humble experts.

Against the background of these transitions, a minimum level of education is nevertheless necessary to enable comprehension of the diversity, contradictoriness, and ambivalence in the decline of traditional education. This education today means primarily acquiring an overview of the various modes of understanding in a culture (and in certain school subjects) and beyond the culture; it means knowingly experiencing—in a broad reflective way—different versions of the world in order to form one’s own judgments in rational understanding. Such a reflection on education, in the way that it is pursued

as reflection on knowledge as truth for a time, on claims to power, relationships, on necessary global goals, etc., requires a dialog of understanding to get to the point of making claims about what groups of people and individual subjects could see as education *for themselves* and *with regard to others*. This would be the definition of a suitable kind of education: an education that is suitable for certain subjects and groups and does not preclude such suitable education for others. Education without such viability becomes dead weight. Such a burden often consists of the dead matter that was valid for other people in other times but whose justification is nevertheless irrelevant today or only incidental. Disciplinary traditions and generational contradictions are constantly important here. What one generation wants to preserve becomes boring outdated material for the next. Viability is thus not only produced from one perspective but requires fundamental dialog between traditional and avant-garde disciplinary claims and between generations in order to negotiate a common measure through participation and understanding.

In addition to group discussions, the individualization of measures also plays a role here, which makes decision procedures complex and difficult if individuals are not to be overlooked.

Education produces differences because it is distributed, analyzed, and evaluated in different ways. This also makes education a difference that produces additional differences. I am supported and challenged in different ways by education, but perhaps I am also devalued, isolated, or honored. The more the uniform measure for education, which has already had illusionary aspects in the past, has been lost, the more the ambivalence that characterizes our ideas about educational claims now has grown. On the one hand, education should provide an incentive for educating oneself, presenting oneself, and developing in a versatile way in order to experience and realize personal freedom. The increase of freedom with respect to educational opportunities also, however, reduces the game of education from a necessary one to a merely possible one. If in the past freedom in bourgeois modernity appeared primarily in education, which created a certain solidarity with the truly educated,<sup>1</sup> today education is just a possibility and just one of the many differences that produce differences. The education of elites was presented and monitored in bourgeois modernity through the hierarchization of education. This hierarchization has lost significance for the definition of social success, which today is primarily oriented towards available money, even if the educated in general have more money than the uneducated. But education alone is not enough in the globalized world for acquiring wealth. On the other hand, the personal freedom that appears to be contained in the will to educate oneself is also

<sup>1</sup> Hegel was still able to say that no justified knowledge has yet been refuted. For him, education continues and sublimates past knowledge. We could call this the solidarity side of the educated.

limited by education itself. The increase in educational opportunities, its contradictions, and its diversity requires that the educated person has to limit their freedom and that they choose for something and against something else. The frenzy of educational opportunities, the redoubling of knowledge, and their acceleration and disintegration times increasingly limit personal freedom because it only appears fitting in limited areas to educate oneself as comprehensively as possible. At the same time, in this way the solidarity of the educated regarding choices is destroyed because knowledge is fundamentally driven from its place as the single truth and increasingly only appears as a possible and limited space for reality for a specific time and specific needs.

Education in liquid modernity implies as a consequence of these contradictions a necessary limitation of education and removal of the illusions surrounding it. The constant possibilities and shortcomings of education are rooted in this paradox. We have to stop attempting to establish a final and decisive educational catalog, which both liberates and hinders us.

The liberation lies in the fact that as observers we can always reconsider which type of education fits us, that as participants, regardless of where we are, should always be asked what kind of education we would like to attain, and that as agents we create our own standards for what it means to be educated.

The hindrances lie in the fact that we are in danger of losing comprehensive communication with others and that a one-dimensional mission with respect to education is not sufficient for ensuring we can communicate with and understand as many people as possible. Education has entered an age in which the educational claims first have to be negotiated in order to determine educational measures and will and the validity and range of justifications for education. John Dewey in particular developed this understanding of education. Since in American English, the concept of “*Bildung*” (education, formation) does not exist, I will use the term *growth* along with Dewey. Growth, development, intentional expansion of one’s own horizon and especially gaining experience through one’s own testing and experimentation is in the focus of such education. In learning, we should not simply adopt an external cognitive schema but arrive at our own reflective actions and thus our own interests. Thereby growth is what according to Dewey many people consider education.<sup>1</sup> Dewey shows that this can lead to a deepening of the discourse rather than a flattening.

With the concept of growth, a clear shift has taken place in learning, which contrasts with the master-newcomer model. The master symbolizes external pressure that drives the self-restraint of the learner and always dominates through discipline, reward, punishment, and selection with respect to choices

<sup>1</sup> For an introduction to Dewey’s philosophy of education, see Garrison/Neubert/Reich (2012, 2016).

and education. This is also very often accompanied by the fact that the master and newcomer in certain societies joined together and shielded their future and occupation from the outside in order to assert their expertise. The new learning now distances itself from a single master and replaces the master with collective knowledge, which is acquired through the mediation of individual masters but which favors self-restraint and self-imposed pressure because it lures people to learning through freedom. It is a decision on the part of the learner to want to educate themselves by setting out on an individual, differentiated, and long path in order to meet the demands of education and growth. But the learner still remains directly or indirectly tied here to the master who checks the learner's progress through tests and tasks. People are integrated then into educational levels, school certifications, and particular careers that appear open to all but that nevertheless can be reached only after certain conditions have been met.

The masters have also changed. In order to provide them with the kind of freedom that appears to protect the free and liberal nature of education, in some places they have been protected through tenure from the risks of unemployment. Were such tenure means that one becomes a government employee, these masters have thereby become dependent on the state and governmental regulations that monitor their employment and behavior. And in other contexts, they have become dependent on the rules and regulations of university administrations. At the same time, their unburdened economic status is a prerequisite for pursuing their education in a truly free way. In liquid modernity they often lose their tenure and the costs of their education is imposed on them.

In general, education is always involved in conflicts of interest, which is true of such education from the very beginning. These conflicts include those

- between general education with an introduction to the diversity of culture and occupationally oriented preparation for specific professions (theory-practice opposition),
- between normative introductions and restrictions to certain periods of domination and openness with respect to social, cultural, scientific, etc. changes (conservation-change opposition),
- between state interests in colonial, imperial, or even racist claims and an understanding of human beings that is open to the world (nationality-humanity opposition),
- between complete education and the impossibility of only even approximately achieving such completeness (half-education opposition),
- between an orientation of education first toward knowledge and then toward skills for all and the simultaneous use of this orientation for distinguishing between achieved levels or certifications that are then used for selections according to better or worse, intelligent or dumb, successfully

qualified or unsuccessfully unqualified (knowledge and skill orientation-selection opposition).

All these oppositions, conflicts, and contradictions live on today, but they are overshadowed and qualified by the last two oppositions because they fundamentally throw the original claims to education into question. We can establish here that today in the liquid claims of modernity, as I have discussed them in previous chapters, education has become a point of conflict for different social interests, without any perspective for a comprehensive consensus, and has also become a central point of struggle in the distribution of capital in mutual competition. This reflects the inner conflict, complexity, and ambivalence of liquid and contradictory modernity as we experience it today. The increase in knowledge already quantitatively subverts any chance for a comprehensive or complete education because even the most educated now can hardly gain an overview of their own area of specialization. Since the middle of the 20th century, given the hope for completeness, education has already become half education, which is a form of education Theodor Adorno described as a necessary lack of education and as lack of an attitude that embraces educating oneself comprehensively; and today it has sunk to an increasingly limited form of education because not only is the tendency toward comprehensive education missing but the quantity and diversity of knowledge makes such education difficult even for those with a positive attitude toward comprehensive education. In this sense, half education could be cut in half again each year etc. in order eventually to arrive at an image of the incompleteness of all education, which is not thought of negatively because the division of labor moving with the same pace has simultaneously reached the smallest areas of specialization. Adorno still characterized half education in terms of an objectified education of the petit bourgeois who undervalue the vitality, diversity, and process-nature of education and instead apply their acquired knowledge in a rather schematic way in the style of external presentation; but in liquid modernity it is becoming increasingly clear that all education, even for those who are supposedly already educated, is beyond any possible completeness and has to be understood in a new way. Differentiation has thereby become a new magic word. But this magic encounters an acceleration of knowledge that quickly disintegrates the truths of such knowledge and thus also makes the position of the magician insecure. This insecurity and uncertainty endangers education itself because who, after all, could be motivated to dedicate themselves to such a long and difficult educational period when success has become so uncertain? And with this, we have already arrived at the transition to learning capital, which has asserted itself particularly quickly under these conditions and will continue to assert itself.

We accept half education, but we take the struggles about distribution seriously. We sacrifice childhood to these struggles by adopting ranked comparisons in early childhood where the “better” are supposed to come out on top as winners. We regard this as fair, and we do so often without adequately reflecting on the different starting conditions of the children or without wanting to consider collective opportunities deeply; such reflection could be useful if we want to avoid orienting the entire system from the beginning toward competition and thus selection and increasing inequality of opportunities.

### *6.1.3 Learning under the Conditions of Capitalization (Learning Capital)*

Currently, it can be observed that both forms of learning or education mentioned previously are increasingly becoming capitalized. This is directly connected to the oppositions that were discussed above with regard to education. What does capitalization mean here?<sup>1</sup>

Schools and universities are parasitic institutions that often provide no opportunity for profit according to Noam Chomsky (2002, 189) who described the role they inherit from modernity. Public schools and universities are dependent on state money, which provides them with the opportunity to freely remain open and critical toward the world, including the world of money. But in the age of neoliberalism, as was described in chapter 2, a mindset has developed that regards learning itself as capitalizable and wants to eliminate parasitic institutions. As Chomsky argues, this has already been the case for some time regarding contracts, particularly for the military in the USA, and it enforces a dependency that fundamentally attacks freedom of research and teaching. In this regard, the private economic sector, which is oriented toward profits, sets the benchmark for success.<sup>2</sup>

Colin Crouch (2004) sums up the economic strategy of the capitalization of learning with the following reasoning: the state lacks the willingness and resources to finance scientific, cultural, and other non-commercial activities. So, they ask the agents in these domains to look for private sponsors so they can save costs. And consistent with raising individual responsibility, they promise additional financing that is dependent on success in applications for private sponsorship funding or other financing bodies. Then, for example, a public theater or university department only receives support when they can show they are also attractive for private donations. This is supposed to look like it is saving costs, but when we consider it in more detail it reveals a fundamentally new “educational approach.” The new strategy that relieves the

<sup>1</sup> For an introduction to relevant literature here, see in particular Bok (2003), Geiger (2004), Krimsky (2003), Mirowski & Sent (2002), Resnik (2007), Washburn (2005).

<sup>2</sup> The studies by Robert B. Reich (1988, 1992) are classics here and still worth reading.



states of burdens with regard to general spending strengthens the power of people who already have economic and educational possessions. To defend such possessions, one no longer needs theories about talent or domination; one can simply allow the power of money to rule while still claiming to treat all individuals equally. At the same time, however, the functions of the state, which it took over in the struggles of modernity and the emancipation movements of the 20th century, and which are supposed to ensure educational opportunity for those who cannot create these opportunities through their own resources, fall by the wayside.

This also corresponds to a changed understanding of education itself. Education increasingly transforms here from a positive mediation of values and attitudes to “negative education” as in the present: it always includes what it lacks because when it wants to make something able to be acquired as positive and useful knowledge the deficiency in this acquisition already shows itself because nothing can be completely known, understood, or permanently useful for the future. Education today is more of a procedure for dealing independently and deeply with knowledge and discursive practices and with reflections on such deficiencies; it is no longer a collection of cultural goods that a person can comprehensively and determinatively form as *a particular kind* of reasoning or virtue, especially not in an explicit morality. A modicum of education as negative education is nevertheless still knowledge of communication and discursive, communicative relations with each other at the level of contents and relationships, which a communicative society that is divided into different communicative groups with different interests and expectations (and thus also with different kinds of education) requires as a claim to its openness. This is needed in order at least to clarify what one no longer can or no longer wants to communicate about completely in terms of content without this ending up in violent conflict or mere lack of understanding. An example of this is migration of Muslims to countries shaped by Christianity, which has led to controversial discussions about the diversity of religions and the acts associated with them. Democracy can grow through diversity, but the diverse groups also have to want such democracy. New concepts such as diversity, heterogeneity, or difference in learning and education also point to these changes.

Achievements in terms of communication in a culture and in its dealing with other cultures require a minimum level of such “negative education,” which can no longer be established one-dimensionally from outside but has to result from the learning process itself. This means that no authority can simply impose an education of whatever kind from the outside; rather, in learning we have to increasingly independently construct the standard of education that fits us. Educational experts are managing this process more or less efficient. Here, the educational standard gets shifted more to the side of self-imposed demands or self-restraint than previously. Where the state and its institutions formerly allowed or did not allow a clear range of values, norms,

access, and degrees through external constraints, now a diversity of individual possibilities emerge, which allow not only state-organized but also privately organized approaches and degrees where the costs, however, are strongly passed on to the individual. Private revenue in schools and universities has risen enormously worldwide in the past decades so that many states have arrived at the idea that their services can be financed through fees. This means a growing capitalization of education in all its forms, approaches, and degrees, which raises the cost of living for individuals significantly and tends to disadvantage families from the perspective of society (when they do not receive any relief or grants from the state) and thus at the same time radically shifts expectations about necessary education. The rapid increase of private schools worldwide to meet the needs of the differentiation of learning opportunities and social differentiation as well as constantly increasing tuition fees at elite universities or even just increasing costs for learning resources at state institutions or tutoring organizations are symptomatic of a capitalization that is already established and will continue to grow. Thus, education or knowledge as a (supposed) end in itself is limited by doubled pressure of expectation:

On the one hand, paying individuals want to get through their education, which has transformed into training, as quickly as possible and thus optimize their degrees; at the same time, they appear in masses in global migration movements. This affects competition for places (paid and increasingly associated with stipends) in particular at so-called elite universities.

On the other hand, students become paying customers who accordingly want to have their needs met through the competition of institutions, which means a radical change in the role of the educator.

Against this background, the analysis of action of capitalized education suggests a clear starting point. In the phenomena, the following recurrent claims circulate, which are often presented as inescapable constraints:

- The securing of jobs is often adduced as an argument when learning outcomes are supposed to be increased in order at the same time to increasingly push the main cost burdens of the state systems onto private households.
- In order to make sense of the capitalization of learning, new structures are created that formalize training courses and make them more evaluable; this is particularly supposed to be concerned with raising academic cross-border mobility through international recognition of educational achievements and degrees; at the same time, periods of study are supposed to be manageable and limited in time; but in reality this really often means that the costs for such systems are increasingly distributed to those that hope to secure their status or upward-mobility through such systems.

- A variety of degrees that correspond to different occupational uses are offered in a targeted way with cost-benefit promises. They increasingly have to present themselves in the globalized context of the international division of labor, occupational migration, scientific-technical innovations and changing markets, and an increase in services and technical differentiation with broad needs for skills.
- Selective entrance (entrance exams, numerus clausus, high tuition) and achieved certificates, which identify internationally comparable skills, make later ranked comparisons of graduates possible in order to mark differences in qualifications and allow positions to be allotted in the struggles over distribution and occupations.<sup>1</sup>
- The emphasis on procedures requires a transition to management, which operates at different levels: it operates at the level of the individual as self-organization of learners and educators (self-management); in the classroom as “classroom management”; at the institutional level as self-management of institutions; in academic programs as science management, called “new public management” (NPM), which in addition to actual research requires increasingly more time and resources for securing research money, i.e. outside funding. Educators often complain here that they can hardly keep up with their own teaching duties because they are increasingly occupied with the documentation, legitimation, and evaluation of procedures in such management. In place of old-fashioned professional ethics, there is an orientation toward outputs with agreed-upon targets, cost-benefit analysis, monitoring, benchmarking, etc., which are all instruments that could be useful for avoiding waste if one lived in abundance, but which given the notorious underfunding of schools and universities only produces frustration rather than understanding. Behind this, there is often an image of educators as rational, highly interested subjects who through skillful organization of teaching and learning activities through management could maximize benefits. In reality, money is supposed to be saved, i.e., it is supposed to be redistributed. In neoliberal form, high emphasis is placed on autonomy and freedom of choice, but at the same time this favors the educated ownership classes in particular, who already have autonomous aspirations and actual choices (see *ibid.*, 124 f.).
- The pressure to achieve a high degree of comparability leads to a standardization of contents and procedures. Education is converted to skills that primarily aim at being able to independently acquire knowledge widely and deeply according to needs. Methodological and social skills

<sup>1</sup> This is propagated in Europe as the Bologna Reforms. The democratization of education aimed at here through broad access and the elimination of social hurdles is more political propaganda than reality (see e.g., Lorenz, 2011).

are becoming increasingly important in comparison with other specialized skills, and easily evaluable tests and measuring procedures are supposed to ensure an objectification of comparability. A comprehensive credentialism,<sup>1</sup> which is expressed in *credit points* for achievements and certifications of all kinds, replaces the personal judgments and recommendations of a designated master or the elite degrees of academics in earlier periods. This credentialism in combination with certification leads to compartmentalized thinking in education, which is divided into small modular units of subjects with sub-certificates (for each subject or division) for all sub-areas,<sup>2</sup> so that *credit points* are earned in a piecemeal technocracy which then is supposed to present a fictional whole. Seen soberly, this can also be understood as a move away from a critical perspective on the whole.<sup>3</sup>

- Through the NPM quantitative judgments about production and knowledge are given priority. Output in terms of publication, participation in ranking procedures according to a citation or relevance index, quantity of external funding, awards received, or other symbolic exchange values become the standard for quality, although in research quality should go beyond such criteria. Ground-breaking quality is something in works that moves against the current of previous works and creates new currents. Anyone who wants to evaluate quality primarily in quantitative terms narrows the horizon and is particularly unfair to the humanities and social sciences, which often operate with a non-quantitative concept of quality.
- The important contents that were previously representative for education or necessary knowledge are in constant decay because symbolic representations are always only versions of constructions of reality that are quickly supplanted by new updates. In this regard, educators often minimize their knowledge of content in order to activate only relevant practical knowledge with reference to required application and aims. This orientation toward skills endangers both basic knowledge without direct uses in application (in the sense of market-related gains) as well as disciplines (e.g., philosophy, sociology, the arts, etc.) that also conduct basic research that runs counter to the mainstream.

<sup>1</sup> On credentialism, see for example Collins (1979). The danger of credentialism is that in hiring practices the certification can be evaluated as more important than actual experience and existing qualitative skills. In a global comparison of the best credits, which are expressed in grades, grade inflation is occurring, which makes the ranked comparisons appear even more arbitrary and thus leads to additional forms of differentiation in elite education (see chapter 6.3).

<sup>2</sup> The divisional chairs that no longer represent parts of fields can then disappear in the long run.

<sup>3</sup> Drori et al. (2003) show that this leads to a decrease in the diversity of academic subjects and directs research worldwide onto a uniform path. In the long term, this will not support quality but decrease it because research requires diversity rather than uniformity.

- A new socio-technological paradigm with electronic and web-based approaches supports the operationalization of knowledge in accessible modules and technically-prepared, scheduled assignments, accessible content, examination regulations, etc. in order to manage learning. Behind all of this, there are shifts, which Fuchs (2010), for example, describes including the emergence of new social groups such as the Internet user, intangible workers, an adapted and successful or precariously living new high-technology proletariat, a new petite bourgeoisie anchored in networks, and a rather unproductive new service class. In such descriptions, it becomes clear that the previous world of education is unfolding primarily in a new socio-technological structure that for its part affects the contents and methods of learning. Technology simultaneously functions as both a funnel and filter here: it only lets through content that fits its formats, and it filters ways in which such content can easily be controlled with technical measures. Thus, contents can be prepared on the Intranet in order to be learned for the test, and the test can be taken in real time online, and the results can be reported back immediately without participation on the part of the teacher. And the fact that this occurs in real-time creates the illusion that something really important has been learned.
- Whereas previously the educated habitus itself appeared to be the great aim, the certificate is now replacing it. The accumulation of as many certificates as possible appears to provide more guarantees for jobs than a comprehensive education could. In the habitus of learners, this devalues their own learning to a certain degree because they are more concerned with easily obtained certificates than with the long difficult road of learning and actual attainment of expertise. More and more degrees and diploma mills are being created. According to (Morrow & Torres, 2000, 42), these are primarily institutions that cannot reach a tangible good position on the university market because of their bad reputation. Especially in the US, they try to increase enrollment overseas in distance-learning programs in order to make money. Universities become corporations (regarding universities in the US, see Bok, 2003, and on Australia, see Marginson & Considine, 2003). The Bologna Reform in Europe also aims at a direct implementation of economic functions especially for the job market. Here even the scientists are under attack. Tenured positions are being reduced or eliminated,<sup>1</sup> and salaries are being reduced. This has occurred in Germany some years ago in the conversion of scientists from C salaries to W salaries. Professor's salaries are thus moving in the direction of teacher's salaries. Because the components of the W salary

<sup>1</sup> On this, see Donoghue (2008) who analyzes the US as a pioneer country in this regard. There are signs of the disintegration of tenured positions and a move toward limited-term professors.

can be negotiated at the university with a low base for allowances, an internal distribution struggle also arises, which profit-oriented subjects and disciplines with high external funding are winning with higher wages compared with the less profitable subjects and disciplines.

- A very large danger resides in the fact that this leads to the flattening of education or knowledge or its reduction to the superficial movements of the times. Slaughter & Leslie (1997) conclude that universities in particular are losing all the achievements in terms of freedom and teaching that they fought for 100 years ago. Even if resources were always scarce at universities, they are becoming extremely scarce in universities for the masses. This primarily affects the state universities more than private universities, which can rely on high tuition fees and have thereby created distorted competition. But the more additional economical capital enters into public universities as well as private universities and comprehensively dominates the direction of research and its results there, the more money might be saved on the side of the state, but at the same time the autonomy of the academic world is thereby fundamentally subverted. This may even lead to the paradoxical phenomenon that the private universities can maintain a higher degree of freedom in teaching and research in the long term because of their high tuitions than the public systems that are under immense cost pressures can. On the whole, the development will result in particular to a decrease in critical worldviews and an elevation of the areas focused on profitable applications. If we want to preserve positive elements of previously broad and independently constructed forms of learning and research, a multi-perspective habitus is needed, which not only wants to see things diversely but also does not shrink away from depth and complexity. But this can only happen and develop if the people who later take on the certified graduates also want and request it.
- There is a two-class form of learning capital: a highly-valued use value ensures qualified gains in competence, which expresses itself in high investment costs (regardless of how much “actual education” is involved), upon which higher income etc. can be achieved in the capitalization of education through better jobs. Chris Lorenz (2008) sums this up aptly in his book title: “If you’re so smart, why aren’t you rich?” And there is an unskilled group of learners who have more or less been excluded early on, which leads at an early age to tenuous positions with few exchangeable use-values on the market; this means these people either end up in the low-wage sector or remain excluded from the beginning because of lack of education.

The critics of such changes in education and academics, however, have a vague idea of what a positive image of education or academics actually could

or should look like in contrast. Such ideas either involve an idealized distortion of the past, despite the fact that the old schools and universities had many weaknesses, or they stick to general set phrases such as that knowledge should spread freely through the world regardless of profit interests, or knowledge for knowledge sake, and that a mandate for the education of people should be carried out without prejudice or limitation to certain interests. But in contrast I want to ask: how are we supposed to structure education, academics, sciences or the universities in a way that is free from its environment? The capitalization of education, knowledge, and learning is not some evil intention on the part of some group or individuals; it is a constant phenomenon of life and the professional world and of capitalism in all its forms of expression. In this respect, we may still be able to negotiate and direct the forms of expression but can hardly eliminate this basic phenomenon currently with realistic perspectives.

The new requirements in terms of capitalization of education are in a tense new relationship with changes in the capitalist labor world. Heavy capitalism is transforming into light capitalism. According to Bauman (2000, 63), in modernity there were authoritarian leaders as well as teachers who always knew the best way to do things. In liquid consumer society, people experience growing individualism, which reveals a change in mentality that is also important for learning. Here, the individual has to fight for their own biography, education, opportunities, and advances in competition with others. The basic framework that everyone expects is part of the basic capitalization of education: identity itself has to be constructed as fragile and uncertain, and individuals have to actively balance their biographical needs and opportunities by also conceiving of themselves as autonomous, independent, mobile, flexible, and dynamic (= *de-jure definition*), even if they have already long inhabited a zone of vulnerability or exclusion (= *de-facto definition*) (see Bauman, 2000, 31 f.). Against this background, in the design of one's biography of learning, there are two groups of learners. Although everyone has departed from the old bonds, constraints, and values of a supposed complete education, some have parents with an educational background that helps them realistically define their own position and construct it with a lot of help, and the others from so-called educationally deprived households are set back in their parentage. Where one group gets advice, support, and assistance, the other group has to be satisfied with what they officially receive in schools. When educators, under the influence of the dogma of individualism in light capitalism, expect that all students are able to start with the same resources, the educationally deprived have already lost from the beginning.

### 6.1.4 *The Interaction of the Three Forms of Learning*

None of the three forms of learning has disappeared or has prevailed over the others. Nevertheless, one can see that the capitalization of learning and education is continuing to grow and has permeated and modified the other two forms of learning. The master-newcomer form of education today also requires a certain general education to be relevant to culture. But professions are also changing with increasing rapidity, and it is striking that hardly anyone remains in their original occupation throughout their life; people often have to change their profession or job, which is something that not only affects low-skill jobs but also skilled jobs as well. Even if the forms of learning work together, it is also clear that new forms of use-value production for learning capital are increasing more and more. The master-newcomer model is used primarily today in certain training phases because it is mainly useful for routines in crafts, industry, and management, and is especially applied in apprenticeships. Some current concepts here are, for example, “situated learning” and step-based training methods. The education/knowledge model is the classic model for school and pedagogical subjects, which has transformed our world of knowledge into a division of labor for subjects that today have become extremely hungry for material from their special perspectives. Knowledge in these subjects has become so complex that it is increasingly more difficult to break things down in school in introductions to the subjects. Because each subject increasingly claims more space, cross-subject perspectives often fall short. Thus, the time is approaching for schools to dissolve individual subjects and present a group of themes, which are taught in an interdisciplinary (with the help of several subjects) or transdisciplinary way (by moving beyond individual subjects). Some countries have already begun to react to this in their reforms.<sup>1</sup>

The capitalization of learning can have the benefit of transforming the learning of reproduced knowledge with unclear relevance for action in later life in favor of greater skills in the application of knowledge for practical life if clear use values can be created for later applications. This allows for the necessary fitting of theory to practice, which is increasingly difficult in the educational model. At the same time, however, this capitalization is exactly what has afflicted learning: on the one hand, there is the danger that use values are aligned only with usefulness for certain specialized applications. On the other hand, capitalization as efficiency in cost management and lowering costs raises the pressure on all subjects and topics to offer a really superficial overview examinable through quick and effectively monitorable tests. The shape of this capitalization is very different depending on the subject, but in general there is the tendency toward reproductive knowledge that is quickly

<sup>1</sup> With respect to the expenditure side of things, see OECD (2010, 2012).



testable and just as quickly forgotten by the learner. This limits the usefulness for practical applications and leads in the long run to additional costs for professional training.

The acceleration associated with pressures on costs and certifications can be achieved in various ways. For learning, the aim is to achieve the highest possible degree of knowledge and its application in the shortest possible time. The danger in all educational systems here is to shorten the learning time without sufficiently cutting material. This leads to a heavier load for students and homes without being able to demonstrate any actual benefits for learning. But the pressure exists to start learning earlier, attempt to cover more material, increase the length of training courses but shorten the individual training elements, and to orient ourselves toward quick learning that can produce a lot at once in order to derive general norms of comparison from this. Educational research and a lot of educational biographies, however, show that education can only be accelerated to a degree, and problem-oriented and application-oriented education actually needs to decelerate rather than accelerate so forgetting does not become too powerful an opponent to learning. Unfortunately, the capitalization of learning has not had the effect up until now that the actual customer, the learner, is the respected client; rather, this client is often given a deal that turns out to be a sham. In almost all school subjects or courses of study, there is a ton of material and compartmentalized knowledge that appears important overall from various individual perspectives but really just leads to acceleration: we learn a little bit from everything but not properly, and we learn too little in a deep and exemplary way that is also adequately application-oriented. We learn how to solve problems according to the book instead of learning to solve problems ourselves. Thus, we seem to get more at the end because we know and can describe so much at once, but in the end, we really have little to show for it. That is why in almost every job in the world one first begins after the training certification phase to actually understand the relevant problems for which an applied solution can be found only after the stress of certification. We are thus satisfied because in comparison with others we do not see any advantages or disadvantages with respect to our own accelerated education. At the same time, endurance and discipline are tested as secondary virtues in our education, and they appear in ranked comparisons for jobs to be a highly accepted use value that can easily be exchanged.

This change in capitalization and acceleration can be felt today especially at universities. Thus, for example, with the change from traditional demonstrations of achievement to credit points in Bachelor's and Master's degrees mathematical operators have been introduced that are supposed to guarantee accelerated study. As a student, I apply via an electronic system for the modules and credits I am still missing, and through operations of electronic

choice or a distribution system and the free spots in my schedule, I am assigned to the classes that I still need to take. Someone who is not familiar with anything else will not miss the personal choices of an educated person where in the past one might have registered at a particular university in order to receive a particular kind of education. In the patchwork of mass operations, one does not need geniuses; one only needs a modularized system that delivers the mass goods to everyone according to uniform standards. That is why mathematical operations can also take over choice and guarantee acceleration where in the past one had to decide for or against a choice using one's own thought. The surplus value of learning capital lurks in this new form of acceleration, and we need to understand it thoroughly if we want to more accurately assess the social and individual opportunities and risks of this form of capital.

## 6.2 The Surplus Value of Learning Capital

Here, as in the other forms of capital, I would like to distinguish four forms of surplus value in the analysis of the use of learning capital and its propagation:

### 6.2.1 *Production of Surplus Value through Educational Labor*

Three aspects are especially important for describing and analyzing the surplus value of learning capital:

- 1) *Time*: it always requires time for learning to take place, to work on contents, behaviors, and skills of different kinds, and to retain and apply these skills. This time dedicated to learning is part of one's time in life, but in educational labor under capitalism it also requires special windows of time that are kept open for school and education. A formal and universally standardized obligation related to schooling, higher education or training is opposed to the learner's free time. Both define in combination the invested time and costs that are involved in the creation of use values (qualifications, skills, etc.) in order to achieve benefits from wages or income on the market.
- 2) *Effort*: learning can mean endless breadth and depth of effort, and the limits here are always determined by the abilities and preferences of the learners themselves. How broadly do I acquire skills or use values in my learning? Is a certified degree enough, or do I want to know more? Do I also continue my studies when they no longer bring me any monetary advantages? My effort strongly determines my windows for action because the narrower the spectrum of my skills is, the more the likelihood

sinks of finding numerous opportunities for exchanging my qualities. And if my spectrum of skills is too broad, I could quickly appear overqualified and thereby have also a disadvantage.

- 3) *Resources*: learning requires resources. These resources are dependent on the family and are available to greater and lesser degrees. Even if the state can intervene in a regulatory way here, the amount of resources required (my books, my tutoring, my study-abroad trip) determines differences between competitors on the markets.

What kind of values do I derive from educational labor? For Marx, there is a direct link between economic capital and upbringing. Upbringing itself generates certain costs, and these costs contribute to the value of the labor and its later exchange value. But there are also additional costs that have to be considered. Marx mentions, for example, natural and climate costs, which lead to different costs of living in different countries, living standards that are achieved through political struggles, and supply and demand costs that can vary depending on population density and education levels. Historical and moral considerations also contribute to the reproduction costs that determine wage levels. This determination is so open that it can explain all ups and downs in wages because the degree to which wage levels are seen as justified or exaggerated depends on the concrete achieved conditions that have been fought for and are held to be morally acceptable in a society. In the previous chapters, I already discussed how different wages and incomes are possible depending on the occupation and degrees of qualification. Here in particular supply and demand play a role so that income cannot be calculated or predicted precisely on the basis of reproduction costs alone. Wage levels always reach a limit here where the profits no longer appear sufficient to the capitalist who wants to make use of their private capital with the intention of making profits. The gains can really never be enough here. Because when labor is so expensive in a country that profits appear lower in comparison with others, then in this globalized age the exodus of many companies to low-wage countries in order to secure greater profits becomes common. So how, against this background, can we define surplus value of learning labor?

Learning basically happens through all actions. But directed learning with acquisition of specific knowledge requires a certain time period and resources because time dedicated to learning is analogous to time dedicated to labor. It is a labor period without wages, i.e., without an exchange or immediate reciprocal consideration; it is only after the acquisition of particular certificates and degrees as use values that exchange takes place and that a job is secured, which then retrospectively “compensates” for the expenditures, i.e., the expectation arises that very high expenditures for learning will later be reflected in particularly high remuneration or income, whether it is from entrepreneurial or corporate activities.

The compensation for educational achievements in later income can be calculated, but this involves a high degree of uncertainty. Generally, it can be said that a higher degree, training, or academic education will accordingly bring in more money in the form of wages or self-employment, but the variation is substantial depending on the occupation and the labor-market situation (see OECD, 2012). Similar to economic capital, people do not calculate the difference here between educational labor costs and later gains in terms of wages or income; rather, they act pragmatically by comparing themselves with others and by habit come to expect a certain level of wages or income for specific educational periods and the quality of certifications. Also, a basic amount of time has to be spent on learning in order to be a part of and participate in a culture. From the perspective of economic capital, this belongs to the reproduction costs of wage labor as well as other kinds of labor, and time spent on educational labor cannot be ignored in this context. Time spent on educational labor does not just include certain subjects that are preparatory for occupations; it also includes general cultural techniques the mastery of which is a prerequisite. People who do not have a sufficient amount of such techniques and whose training profile is thus strongly regarded as unskilled are often thought of as uneducated.

The costs of educational labor (time, effort, resources) are primarily carried by the individual or their family, although the state in public school and higher-education systems distributes a part of the costs through taxes. Government spending is, however, usually limited; it is easily based on a standard that only wants to make the essentials available, and in general these expenditures are much lower in comparison with privately funded systems. The privately funded systems finance themselves through high and even exorbitant fees, which secures their exclusivity and promises a particularly high return on learning capital through better jobs and income.

In the analysis of action of use and exchange values for learning capital, I see two tensions:

On the one hand, learning capital can vary strongly historically and culturally in its various forms. In the context of globalized world markets, competitive conditions are created locally and globally even within educational labor between different markets, which does not remain without consequences for learners. The constant improvement in modernity of the education of as many people as possible and thus the broad masses is qualified as an expression of the expansion of education. It is contrasted by the fact that the elite schools and universities are inaccessible for the masses despite their scholarship programs. As with economic capital, we can speak of an impoverishment of learning where the expenditures in relation to the better institutions show the poverty of the public and mass educational system in the expansion of education compared with the new elites or elite schools.

On the other hand, the labor market or the opportunities for self-employment only demonstrate in hindsight the degree to which the invested costs were usefully applied and what incomes are actually achieved. Here, one can see the tendency in learning capital that the high expenditures and the quality of the achieved certificates offer good protection for the future, i.e., are able to secure good jobs in comparison with the less skilled or are able to increase opportunities for higher income. The school and university system itself, however, generally has no direct influence on the market for which it produces graduates. This also reveals the private character of educational labor, which does not produce a right to work but only a chance to be employed or a chance to act oneself.

The general population often adopts a rule of thumb that relates invested learning capital directly to achievable wages or potential earnings: the more investment is made in learning capital, the higher the expected income later. Even if this rule of thumb is not entirely wrong, it has to be qualified strongly when we consider actual practices in capitalism. This is because the division of labor for learning capital has two tendencies: one toward skilled labor and another toward unskilled labor. Regarding concrete work, I already established in the economics chapter that two possibilities appear here: on the one hand, there are skilled use values that help produce not only skilled or part-time workers but flexible, available, mobile, cooperative, and communicative workers that can adjust professionally as well as methodically and socially to accelerated and changing jobs. In their lifestyles, the workers must also act according to high health and living standards, which requires a broad education. On the other hand, there is the low-skilled training of part-time workers according to private needs sometimes in combination with narrow-mindedness. Often this consists in physical labor that is based on simple action sequences where the degree of simplicity, however, is dependent on the respective level of education achieved in a society as a whole. Such labor is especially true for mind-numbing factory work involving simple activities or for services that can be learned relatively quickly. Compared with complicated, skilled work, this is simple work that is often shifted to the low-wage sector. The serial nature of operations in particular suggests a lower level.

In his economic studies, Marx for example understood skilled labor as multiplied simple labor, which expresses the different level of such work. As skilled labor, it is complicated and often intellectual work, which can demand a higher wage level on the market than simple (often physical) work. Marx thought that complicated labor only reflected a multiplication of simple work because it was composed of a multitude of simple kinds of labor. This is, however, thought of in a strongly quantitative way and abstracts the exchange-value side in a preferential way while neglecting the concrete diversity of different activities. Purely quantitative models are no help here because people regard the value of their labor from completely different points of view:

- Different kinds of labor are valued highly or lowly depending on the culture; thus, for example, in one country a doctor or judge may be highly regarded, and in other countries teachers or bank directors, etc.
- Supply and demand strongly determine the respective ascribed value of a work in the course of time according to local and global viewpoints.
- The expected respective level of difficulty of a skilled kind of training makes people value it highly.
- The restrictions on admission and selectivity of certain kinds of education and training suggest a higher quality.

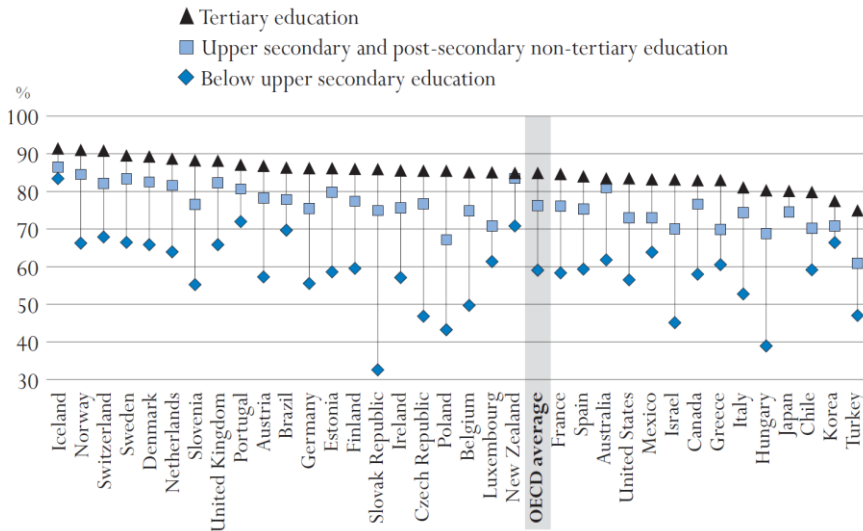
If we consider the distribution of learning capital in industrialized countries, it becomes clear that the qualification quota has consistently increased in the past decades. In this expansion of education, more and more people spend so much time on learning that they achieve university-entrance qualification and complete studies at the university. The previous elites see this as a decline in the quality (which was never adequately evaluated) of their own education, a prejudice that is often adopted to maintain ownership statuses and continues today to lead to a slowing down of educational openness. Nevertheless, cultural and professional changes under globalized capitalism require higher education levels for more people, and the high costs are foisted onto the individual and their family: “If a male person decides to study in Germany, they can expect a loss of around 59,000 USD (EUR 50,000) during the time they are studying. There are also additional costs of nearly 5,900 USD (EUR 5,000). This, however, is balanced by an estimated income of over 200,000 USD (EUR 170,000) so that the bottom line is an additional income of almost 140,000 USD (EUR 120,000). He can thus chalk up an annual return of 9%.”<sup>1</sup> Such figures fluctuate, however, particularly when tuition fees raise the cost of educational labor. The differences between countries are very high here. But as a general international trend, it is clear that

- the state also profits in the long run when as many people as possible achieve as high a degree of learning as possible because they then bring more money to the state through skilled labor and create less costs because of lower unemployment and health and social costs,
- this is also favorable for the individual because it opens bigger and better opportunities in life.

The higher level of qualifications and skills also means that the expectations for better paid jobs can only function in a limited way because there is now a wide range of qualified candidates. Although this qualifies the level of income,

<sup>1</sup> Translated from German Government in OECD Publication “Education at a Glance,” major statements from the 2010 a edition in: [http://www.bmbf.de/pub/bildung\\_auf\\_einen\\_blick\\_10\\_wesentliche\\_aussagen.pdf](http://www.bmbf.de/pub/bildung_auf_einen_blick_10_wesentliche_aussagen.pdf), p. 5. It is interesting that women in all countries, and especially in Germany, achieve a lower rate of return.

finding any employment at all is increasingly becoming more of a problem than higher incomes. It can also be seen here very clearly that the gap in qualification levels differ between countries:



Countries are ranked in descending order of the employment rate of 25-64 year-olds with tertiary education.

Source: OECD, Table A6.3a. See Annex 3 for notes ([www.oecd.org/edu/eqa2010](http://www.oecd.org/edu/eqa2010)).

StatLink <http://dx.doi.org/10.1787/888932310187>

Chart 24: Qualification Levels in Education. OECD (2010 a)

The pressure on degree-oriented educational labor that this generates strengthens the capitalization of learning and leads to the fact that through a variety of paths certificates of all kinds are produced, which are becoming a necessary condition for economic earnings. The stronger the pressure is, the more quickly the capitalization of learning moves along.

The uneducated in contrast are among the “dispensable” (see also Bauman, 2004). They call into question the extent to which integration into working life can be successful when features for exclusion have become solidified and the state has not already taken sufficient measures ahead of time to avoid or minimize exclusion processes. The question, however, remains open whether in current capitalism especially in the vortex of supply and demand anyone might run the risk of getting on the wrong track or ending up being apparently dispensable.

If we look at the surplus value of learning capital as a whole, it becomes clear that high investments in learning capital in order to achieve the highest possible certificate in the most preferable position are always in principle a favorable prerequisite for later securing the most secure and highest income

possible. However, this only works in accordance with other additional kinds of surplus value, which will be shown in moment.

In the analysis of the action of the use of the difference between educational labor costs and better gains through better jobs or income, there are at least four aspects that are necessary to capture the essential elements of action in dealing with learning capital:

- 1) Learning capital can actually be expended in any country and is available in principle to anyone, i.e., there are social standards for education, for certification of education and various degrees, which are made available publicly or privately in the social division of labor as school and university systems and are mutually recognized internationally. Such public or private (but also state-approved) educational environments are standardized insofar as they enable comparable and evaluable certifications of all learners and enable these to be judged. There is a standard compulsory education with compulsory educational periods. The filling of these educational periods through contents and methods involves various divisions into subjects and various quantities depending on the country.
- 2) Educational labor is a basic condition for social action, i.e., all people have the opportunity to learn in a group-oriented way according to standards and thus prepare themselves for their future life or profession. However, in the capitalization of learning the respective expenditures that are made here by the public and guarantee free or paid access for learners differ. These differences indicate a high or low degree of equality of opportunity particularly for those learners that come from educationally impoverished groups and have no means to privately fund their educational labor. In most industrialized countries, there is the tendency to maintain the compulsory education of all learners for as long as possible so that opportunities for education can be held open as long as possible. If distinctions and selections according to particular educational forms or offerings requiring higher qualifications are introduced, points are first set in order to channel different types of learners with different types of certifications and degrees. This is measurable through the distribution quota for the respectively available school and university paths of higher or lower types.
- 3) There are observable advancement mechanisms in actions, according to which learners divide into different groups of learners and according to which they are later admitted to advanced degrees or selected for professions. Such advancements either happen through the school system through forms of education and grades or they are required after schooling through examinations and admission conditions.



- 4) Finally, a certificate is created for all actions, which can be added to your curriculum vitae. These certificates document a state-tested or institutionally recognized use value from educational labor, which symbolically attest to the time, effort, and resources spent as a codification of comparable value. The capitalization of learning appears in a number of certificates that are granted for educational labor but that cannot be used as exchange values as universally as money can.

### 6.2.2 *Production of Surplus Value through Supply and Demand*

If we take the chapter on economics as a basis, then learning capital belongs to the costs that wage workers or dependent employees of all kinds have to incur in order, through time spent on education, to achieve certificates and socially recognized degrees that first make an application for a job possible in the first place. The possible wages that result from this job serve to cover the costs of living that have been established as a historical-cultural achieved position. The wage level that can be reached in individual cases depends on many factors:

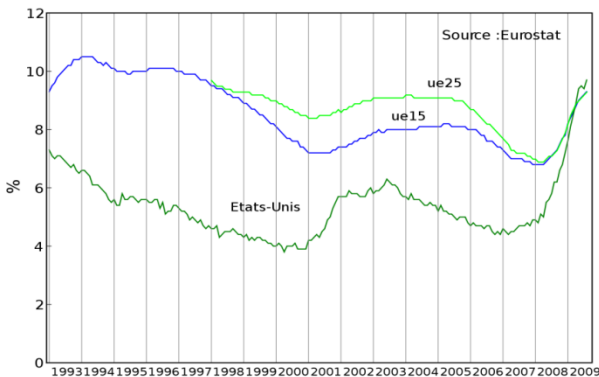
- What tariff agreements and wages are being fought for in order to ensure a way of life appropriate to the culture not only for workers but also for their families?
- To what extent can the living standard be maintained with this income, or does inflation eat up large parts of it?
- Which reproduction costs in the material and ideal determination of the wage level are regarded as necessary and accepted and defined as dignified in the society?
- How much does the state intervene in distribution through taxes and levies, and what do they take away from whom?
- What opportunities are there on the capitalistic market to realize benefits through supply and demand in the struggles over distribution?

Supply and demand decisively determine the labor market and in large part also determine the struggles over distribution. Even policy, which intervenes in the distribution structures through state regulations as a steering force, is subject in its regulations to the pressure of supply and demand. The movements of capital thus determine locally and globally which workers with which qualifications are needed where. In simple terms: if the workers are abundantly available, then wages sink, or unemployment climbs and the wage level remains the same; but if there are too few workers, then people can expect a good income in comparison with others. This is how reserves of workers arise of those that always are kept available or thrown out—in order to be taken up again or thrown out depending on the fluctuations in economic

activity. It is also how others arise who can only find their income through self-employment. The state assumes the costs for the reserves and for many of the general reproduction costs by primarily burdening the masses of wage laborers through taxes and levies. In this regard, the state is already involved in distribution struggles according to supply and demand.

In addition, those who work independently in various occupations, including entrepreneurs, in order to secure income profits are liable for investments in their education. These investments are generally particularly high for independent professions because they are associated with special training (e.g. physicians or attorneys). In particular, fluctuations according to supply and demand have strong consequences in these areas for possible earnings.

The fluctuations of supply and demand on the labor markets are substantial, but they are also a fiction on the other hand. They are especially significant for those who are in demand. Such people represent an illusion for others who are permanently kept in reserve. It is striking that all industrialized countries have to maintain a certain percentage of such reserves. If we look at the continuity of global unemployment (a statistical tip of the iceberg, which includes only those who are seeking employment, and those who are already written off are no longer counted), a fluctuating but always high percentage of reserves is evident:



*Chart 25: Unemployment Rate in Europe (UE) and the USA (Etat-Unis) – 1993-2009*

In the analysis of the action of the utilization of the difference arising through supply and demand, there are again at least four aspects that are especially important when we observe learning capital on the markets:

- 1) There is a market where a need for labor or independent professions (in various trades and services) either exists or is created. There is a range of different workers with different times dedicated to educational labor

and different profiles (use values). There is a demand for workers on a labor or service market.

- 2) The supply of workers or independent professions can be seen and assessed by the participants in the market. On the side of the workers, there are application procedures and assignment opportunities (e.g., through employment offices); on the side of the companies, there is choice with regard to employment contracts; on the side of independent professions, there is an ability to practice the profession on the basis of certifications.
- 3) There are labor wages that allow the company to use the worker for a certain fixed time. For the independent professions, there is an income that can be self-generated. There is an incentive for the formation of learning capital, which consists in the fact that for particularly high investment costs higher wages or income justify the investments or educational efforts.
- 4) The exchange of labor or time spent at work or income for services is actually realized in market competition, and the market mechanisms are respected, i.e., the wages paid or the income sink with high supply and rise with lower supply in relation to demand. If there are external regulations, such as minimum wages or maximum limits, the mechanism of supply and demand is limited through regulations.

Economists as well as unions have developed differentiated theories regarding these aspects, which cover each of the aforementioned points in detail in their dealings with and against one another. It is important to recognize that exchange is processual and circular, i.e., that one's own actions in the areas of supply and demand, which are important for capitalism, also changes one's own initial conditions. The limit here is still that no capitalist will pay wages over the long term if they cannot also at the same time make a profit.

The state generates the bulk of its income from taxes paid by dependent employees. In this regard, it also has an interest in the proper functioning of wage labor. For the most part, capitalist states have a positive effect on job placement, vocational training, and occupational education, i.e., the state also assumes some costs, which relieves companies of the burden and delivers reasonably priced workers to them as needed. At the same time, the state generally organizes systems for unemployment, health insurance, social security, and self-management, which also protects companies from long-term costs. The mass of people that find themselves in wage labor finance this system through their own labor since proportionally the tax contributions of companies is generally significantly lower than that of workers. This is often justified by pointing out that the capitalist enters into the entrepreneurial risk, which should not be inhibited by commitments that are too far-reaching.

### 6.2.3 Creation of Surplus Value through Illusion, Deception, and Fraud

The two types of surplus value mentioned previously can also be influenced, directed, and manipulated directly for learning capital in at least three ways in production and services:

*Illusion*: anyone who promotes their labor as a good on the labor market or competes with others in independent employment can emphasize the quality and uniqueness of their position or exaggerate it in order to have better chances of success. In this regard, applications and advertisements in services are always colored in an illusionary way. Accordingly, certifications are also under the pressure of illusion because anyone who expends labor on education expects a large part of the illusionary pie in return so they can outdo others in competition. The mechanisms for making this happen are similar to the mechanisms for the sales of other kinds of goods:

- Projections regarding one's own educational success and fantasies about associated effectiveness are part of the necessary instruments of learning today. In self-reflexive portfolio work, I not only sum up what I have already achieved (my knowledge) but I also extensively describe my personal educational steps, what I have succeeded in doing and where I still have room for improvement. This generally useful method of self-reflection, however, becomes counterproductive when I no longer give or receive honest feedback over the state of my projections as a customer of a school or university with a high tuition price or as the evaluator of my teachers.
- My personal showcase, my application portfolio or homepage, my Facebook profile or other form of aesthetic self-expression is supposed to raise my market value, but this increase always also presupposes a bit of illusion. The transition to deception or fraud is gradual.
- In the expansion of education too many people become qualified through education so that competition always already devalues my own achievements. The status, which I can achieve through registration in respected, expensive schools and universities, my networks, which I demonstrate externally through symbols, and additional education, which adds decorative elements to my educational biography, help in this regard.
- In a comparison with students across the world, I am just one in a mass of individuals. That is why I have to emphasize my uniqueness in all areas of life and especially in my occupation. For applications, the great art is in creating a position when one is not even really needed but one can offer so much individual, unique potential that one creates a position for oneself. Often, an internship is the best way to get in this way.

*Deception:* deception is a heightened form of illusion, which often occurs in learning today. There is so much knowledge, and it is so easily accessible. Using *copy & paste*, one can quickly generate someone else's knowledge as one's own, and no one really knows any longer how much is original on the Internet and how much is just copied. What is important is not just whether the deception can be hidden, i.e., you cannot get caught just stealing information, but more importantly how and with what natural habitus one can reach back to other's knowledge. The perfect deception deceives itself by claiming as a public good what it wants to reclaim as its own for egoistic purposes without citations or references and without being reminded of or wanting to be reminded of the original source. This kind of deception is most common in the naturalness of a bourgeois or at least middle-class habitus, which finds it easy to take what obviously belongs to it or has always belonged to it.

*Fraud:* because illusion and deception in learning during the school years is less consistently punished today since many teachers understand the difficulties of competition and the superficiality of comparisons and thus react "mildly," it is no wonder that attempts at fraud are increasing. The more PhD theses are checked for plagiarism using software, the more perpetrators evade this through foreign languages. Translations are difficult to check, but it is not enough to attempt this with a lack of language skills because plagiarism is often recognizable then through sentence and word choice. Recently, as a countermeasure, academic ethics codes have increased and penalties have been advertised. Also, the fraudsters in learning capital run the risk of being discovered at some point. This is especially true when they reach a high degree of popularity. They have cheated to become famous, but it is precisely their fame that brings them down.

The question arises of the degree to which actual educational achievement can be simulated through these factors, an achievement that is not only useful for attaining advantages, capturing a position, or meeting a requirement but is also an asset in practice and application. This can only be answered specifically and varies greatly depending on the area of action. A fake medical degree will not help one successfully carry out operations, but there are enough examples from medicine that show that fraudulently obtained titles and occupations can remain undiscovered for a long time. The mere possibility is already sufficient for being successful. So far, school and university systems have been completely overwhelmed by these factors because they are still beholden to an old idea of loyalty that is grounded in the collective norms and values of authorship, a trust that has long been fundamentally undermined in capitalism. And how is one supposed to clearly distinguish in such a culture forgery in material production, industrial espionage, and the search for individual advantages in education, from occasional cheating in

school all the way up to forged examinations or documents? One rather has to expect an increase in fraud.

Analogous to the four aspects in the analysis of action of other forms of capital, there are also certain aspects here that are important in the analysis of actions:

- 1) An educational biography is based on costs, is comparable to others, and differentiates itself through forms of grades, degrees, and the profiles of certain schools, universities, and careers, and there are always status symbols, symbolic honors, or fictional attributes that can be displayed when presenting this educational biography on the market or in competition.
- 2) The fictionalization of an educational biography can be described and demonstrated in a logical and plausible way for “common sense” in order to be credible and in order actually to generate benefits (use of fictional strategies and self-promotion).
- 3) In exchange, an educational biography can be successfully marketed or used in actions through sales, exchanges, contracts, obligations, bonuses, etc.
- 4) The additional profit for the previous points is either realized in addition to an actually existing value or purely fraudulently, i.e., it either increases the existing realization of use value and surplus value and increases demand, compensates for disadvantages in both areas, or generates profits without any trade off.

#### *6.2.4 Production of Surplus Value through Parasitic Gains*

The largest parasitic gain in learning is primarily an educated childhood home. The habitus developed here not only helps to construct and apply one’s own educational biography; when it is well developed, it also leads to favorable inheritance, and facilitates the search for a partner with the possibility of upward mobility, and helps avoid learning difficulties through extra measures such as tutoring and international stays abroad. Anyone who cannot claim such parasitic gains has to accept significant disadvantages in terms of educational opportunities.

The luck of being born in an educated family of the upper bourgeois or at least the middle class can also not simply be compensated for with money (such as a working-class household winning the lottery). First of all, such cases are already extremely rare. But the accumulation of education in order to develop a corresponding educational habitus and outward presence also involves a different logic. It is the logic of the elites (see e.g., Hartmann, 2007). And it is characterized primarily by the following features:

- Career successes are not only associated with achievements but are fundamentally related to social pedigree (see also chapter 3).
- Careers are primarily regarded by the elite as business careers. Only such careers can attract a lot of money and power gains. When children from the upper bourgeoisie are making a choice about a career, they tend to prefer business.
- The bourgeois habitus also has a clear advantage here: even for management with PhDs (engineers, lawyers, economists), according to the available data, those from the upper bourgeoisie have a 50% higher chance and those from the upper classes have a 100% higher chance of reaching an executive position than PhDs from the middle or working classes (Hartmann, 2002, 93).
- Advantages in achievement through investments in learning capital such as the length of study, age, the PhD attained, study abroad, occupational experience before beginning studies or a PhD also have an effect on careers in business, but they do not compensate for the disruptive effect of social pedigree, even if these effects have decreased in the last 50 years (see *ibid.*).
- It is only in association activities or leadership positions in the public sector that one sees the advantages for children of the upper bourgeois persisting but gradually weakened (*ibid.*, 94).
- The habitus (according to social, cultural, physical, and learning capital) is crucial in the selection of elites: being on the “same wavelength” and having the “right chemistry” are important. Here, “at the core there are four features: familiarity with the dress codes and behavioral codes of the upper levels, a broad general education, a developed entrepreneurial attitude (including the optimistic attitude toward life that is regarded as necessary), and the most important element, personal sovereignty and self-confidence” (translated from German, *ibid.*, 122).
- The habitus generally not only means a good education with a college-entrance diploma, trips abroad, university study, access to optimal networks, very good internships etc. but also a high tolerance for risk because the family provides adequate security and support.
- The habitus constantly changes itself and the consumer behavior of the elite over time. Among the commonplaces here are always being informed about luxury consumption habits regarding living areas, trips, leisure activities, and invitation circles for leisure and parties, and having a self-reinforcing network of good relationships and a certain recognized status (see also chapter 4).

### 6.2.5 Summary

If we consider all the profitable uses of learning capital and its circulation—surplus value production through educational labor, supply and demand, illusion, deception, and fraud, as well as parasitic participation—then the analysis of action here shows (as with the other forms of capital) that benefits are always derived from a difference. This can be summed up in a simplified way as follows:

	Form of learning capital	Surplus value arises as difference	Profit in its form of action
1.	expenditure of learning capital in an educational biography according to different forms and profiles	between individual costs of educational labor and the later pay or profits from independent employment in comparison with others	profit is determined by the wage level of the gains, which are conditioned by the duration of employment and the opportunities for income
2.	supply and demand	between common/existing and unusual/rare abilities/certifications <i>versus</i> later gains in wages or profit actually achieved through independent labor	the market qualifies the invested costs and realizable surplus value through competition and fluctuations in wages or other profits
3.	illusion deception fraud	between the actual costs of educational labor <i>versus</i> the fictional value of it due to illusion, deception, or fraud.	the market is actively influenced in order to secure wages/profit and make extra profits through overpricing
4.	parasitic participation	between participation in already existing learning capital in a family <i>versus</i> one's own efforts	existing learning capital in relationships secures possessions that can be used to one's own advantage

Chart 26: Surplus Value through Learning Capital



### 6.3 Societal Use of Learning Capital

In industrialized countries, the change in labor markets has caused demand for simple skills to decline steadily or be restricted to limited areas. The following factors in particular have been central to the societal changes in skill profiles:

- Simple work is done in low-wage countries under globalization. Jobs in manufacturing are disappearing due to automatization or require significantly higher skills than previously due to scientific-technological advances.
- Communicative, cultural, and social skills are increasingly in demand in the service sector and beyond. Overall, there is increased importance attached to the flexibility, free availability, and increased mobility of workers, which is associated with increased cognitive, emotional, and social skills.
- The new information and communication technologies, which cross with other innovations, already presuppose a basic skill level in this area. The new “technologies of the self” (Foucault, 1988) increasingly make it necessary that one make one’s own body, fitness, and mental and emotional health and development an object of self-observation and self-monitoring (see chapter 5).

The state and the respective governments have to react politically to such developments. In this respect, the political level is conditioned by at least five factors (on this in part see also Burbules & Torres, 2000, 10):

- 1) Pressure through transnational, global capital, which always threatens migration when profit interests are not adequately met.
- 2) Pressure through national capital and specific local power and lobby groups, which are important to and provide support for the legitimacy of the ruling political order as donors or allies.
- 3) Pressure through mass media, which connects the first two groups into a majority of economic and power interests through the media’s own capital structures and articulate these interests in a pointed way—this pressure is personally placed on politicians who can thereby gain or lose popularity.
- 4) Pressure from the electorate, which has to be motivated at the end of voting periods to prefer certain parties and their specific interests over others.
- 5) Pressure through international organizations such as the United Nations, the OECD, and other institutions that promote the general development of human rights and dignity, anti-discriminatory practices, and educational opportunity as well as expenditures for public interest.

Faced with these pressures, it is difficult if not impossible to assume a single individual approach and set of individual interests on the part of a country with regard to the societal use of learning capital. Policy will advisedly often follow markets and their pressures here, which is particularly evident in the neoliberal economic phase of the past few decades. Although it has been clear since the 1970s that increasing capitalization of education would produce losers particularly in socio-economically weak families, most industrialized countries have increased compensatory expenditures in education only slightly or not at all in relation to other economic growth and thus the effects of discrimination have increased. In the long term, they are then subject to costs that are significantly higher than if one had reacted in a timely manner over the long term. But such a reaction would contradict the neoliberal doctrine that the market will address what needs to be addressed. But this has not happened.

The societal use of learning capital is always also connected with the accepted and widely applied pedagogical and educational ideas as they are shaped by educational sciences, the social sciences, and educational psychology. It would be naïve to believe that the process of scientific observation, description, and application is not shaped by the respective attitudes of the time. They contain all strengths and weaknesses of this attitude. We may certainly welcome it today when educators and learners are increasingly more diverse, heterogeneous, and individual, when they are active, participate, and solve problems on their own, when they want to and should work together, and at the same time are oriented toward local and global cultures; however, all of these attributions and desirable characteristics also exist in a time of ambivalence. They may be used in the sense of democratic participation, but they could also draw on neoliberal one-dimensionality in order to ensure that those who already are educated get more of it and those that do not have enough education do not get much more. All those involved in the system have to recognize clearly that there is no space here that is free of power or interests; rather, there is a very hybridized space in which different and opposed interests mix,<sup>1</sup> a space which is an object of political struggle in which policies regarding equality of opportunity and equity first have to be fought for.

I would like to further specify the societal significance of learning capital in a few steps: (1) First, I will briefly discuss the expansion of education and its effects. (2) Then, I will discuss the main shapes in which the concealment of learning capital in capitalism takes place, i.e., why one often does not want to know how learning capital functions and what is particularly problematic about the concealment. (3) In a third step, the relationship between science and

<sup>1</sup> On this, see for example Popkewitz (2000) who along with Foucault also sees the danger of hegemonic practices in hybrids.

scholarship and learning capital will be discussed. It will also be shown here how surplus value can be encountered in science and scholarship. (4) Finally, in the section on learning capital and equity/equality of opportunity I will show the direction social perspectives can take so that we do not increasingly lose sight of equity and better equality of opportunity for learning capital.

### 6.3.1 *The Expansion of Education and the Dissemination of Learning Capital*

After the Second World War, there was an agreement in all industrialized countries, which played an important role in the postwar rise of education into the 1970s, in particular to make sufficiently trained workers available. Liberal politicians demanded in the 1960s that the social stratification of education be deconstructed to provide more openness because the changing labor world required broader education. Most countries had common education of all students in a class in *comprehensive schools*,<sup>1</sup> i.e., selections according to differences were made after the eighth or ninth grade. However, in this time of the rise of education, the differences in results in light of differences in the quality of education and the reproduction of inequality were not discussed sufficiently (cf. Bourdieu & Passeron, 1990). Especially with the family education among the less educated, it became increasingly clear that the state had to establish provisions in order to make an effective school system possible for large groups of learners because the development of industrial production and services increasingly demanded more skills particularly since unskilled work in a global world is cheaper at other places than in traditional industrialized countries. All education and training systems throughout the world came under cost pressures during the expansion of education, and in the neoliberal and partly neoconservative phases since the 1970s many countries first encountered expansion and then had suffered deteriorations in their educational systems.<sup>2</sup>

The deterioration is especially felt by economically weaker groups. Those without training or education or inadequately trained or educated people are not produced by economic capital, as is the case with the unemployed, but by the state itself (see for example the different interpretations in Collins, 1979, Oakes, 1985). Unjust educational systems in particular, which do too

<sup>1</sup> This expression refers to the British system, but late selection is also a model in the US, Canada, and many other countries. Only the German-speaking countries present a different model with early selection after the fourth grade.

<sup>2</sup> On this, see for example the overview in Apple (2000), Giroux (2008).

little for the disadvantaged, produce significant effects. If we look at the statistical findings for the industrialized countries in a summary, we can recognize both progress and regress. We see

- that a large proportion of students in the last few decades under the *expansion of education* have moved into higher forms of education and attained higher qualifications, which means these forms of education and qualifications have lost their status (however, internationally the value of such expansion differs),
- that women in particular have caught up in comparison with the past and are even tending to surpass men in qualifications in the educational system,
- that however at the same time students with poor resources—poverty, migration, lack of education, experiences of discrimination—also appear to be pushed toward the bottom.

In Lomborg (2004, 238 f.), T. Paul Schultz points out that in areas of reform there is little chance of success for equal access to education when there is no political agreement among the different interest groups that more money should be invested in these areas. In addition, it is beyond doubt for educational economists such as Lant Pritchett (in Lomborg 2004) that in addition to adequate funding (1) more autonomy for teachers and school administrators on site is particularly effective, (2) a decentralized approach and monitoring of measures involving parents and communities is needed, (3) transparent empirical studies on actual success should be done, and (4) clearly achievable goals in education should be set and aspired to. If these measures are not sufficiently present, structural school reform is necessary. If the state wants to raise equity and equality of opportunity, this has to be achieved not only through social services, although these have become increasingly important to larger parts of the population in light of low-wage areas and consistently high unemployment. However, in the long term a structural improvement of the educational system regarding these four points appears crucial in order also to open access and good opportunities for disadvantaged people independent of their socio-economic status or other disadvantages. The learning capital generated in this way appears as the main possibility for regulation in order to sustainably create a certain degree of equity and achieve more equality of opportunity.

The international school comparison studies (PISA), however, show wide disparities in learning capital. The reason for this is that in industrialized countries, neoliberalism as well as neoconservatism have had very uneven influence (see Apple, 2000). If neoliberalism relies on the power of the markets but also emphasizes the role of the household in education and, as Fraser (1989) works out, thereby strengthens a patriarchal worldview, neoconservatism in addition also evokes the “Western tradition” of the family and helping

so people can help themselves. Dale (1989) gives an example of how this impacted upbringing under Thatcherism: it increases the division in society between those who already have possessions (and continue to have them in the future) and those who do not.

In the empirical research on education, there are some explanatory theories that attempt to explain the phenomenon, namely why despite the expansion of education significant differences between social classes or levels persist. Such explanations are for their part not free from the attitudes of the time and certain fashions in research. Thus, they have moved in particular way from economically determined social classes in order increasingly to present models in which the educational opportunities of the parents—neglecting the class question—are passed on to the children (a classic here is Boudon, 1974).

As a primary effect of pedigree, differences between social classes are measurable as expressions of education, resources, and targeted support, which show that children from uneducated families in comparison with those from educated families have disadvantages particularly in cognitive areas, language achievement, social behavior, and social skill. At the same time, the parents from uneducated groups are less aware of how important investments in education are. Usually they cannot muster their own resources to make adequate investments in order through education to increase the opportunities for their children for jobs and income, avoid social decline, or secure a better status. A secondary effect of pedigree here is which educational decisions the parents make for their children (e.g. preferably not send them on to higher education because there will be too little help available versus absolutely invest in higher education and organize tutors if they are not doing well). The effects of pedigree also touch the existing school system, which increases such effects through selective practices or minimizes them through comprehensive support and an inclusive design.

Such an explanatory model has the advantage that empirical researchers can construct countless points of measurement to reconstruct the household resources, attitudes, and decisions of the parents. The data thus collected has significantly expanded our understanding of educational inequalities at the level of the phenomenon. However, we cannot forget with these models that we should also consider the economic status in the background, which has effects on the choices of parents. The decisions that are made strongly depend here on the forms of capital in the parent's household. Decisions are based empirically on more easily measurable educational inequalities as an object of investigation instead of deriving systematic connections from the forms of capital and reflecting on them. The downside of such models is that economic capital, as a crucial condition for resources, and educational inequalities are made invisible through this kind of research because it does not play a sufficient role as a metric.

### 6.3.2 *Concealment Tactics in the Capitalization of Learning*

People have always thought about learning and education, but they have very often tended to create simplified images, which have shaped learning according to the spirit of the time and the mainstream in cultural contexts. These images included in the modern past (1) naturalizations and (2) universalizations,<sup>1</sup> which I regard as two fundamental errors and which still occur in academic descriptions of learning and assessments of the forms of learning capitalization. This is followed by (3) empirical reductionism, which makes it difficult to understand this form of capital in its interactions.

#### *(1) Naturalizations*

Humans observe nature and draw conclusions from this about seemingly “natural” beings. They thus create analogies between plants and animals and human beings. Just as plants need water to grow, humans need material for learning. Just as the animal needs a hard hand and guidance, humans need to be disciplined and led in education. There is a tremendous wealth of such analogies, which allow arbitrary values and norms to be projected into learning in order to generate desired behavior from the cultural contexts. Naturalization is at the same time a very convincing tool of legitimation because it appeals to common sense and allows everyone to talk about education. Such naturalizations can be found even today in elaborate theories of learning, particularly in behaviorism.<sup>2</sup>

Naturalizations are always meta-narratives, great stories that promote the plausibility of respective constructed truths in a general and easily comprehensible way by concealing the difficult societal background and simplifying the complex interrelations and struggles over power and knowledge. Theories of learning easily fall into such practices because all people have their own experiences with learning, which they like to see presented in a comprehensible “story.” In order not to be taken in by such errors, it is necessary to refer the putatively certain new naturalizations (e.g., from neurobiology, brain science, etc.) back to the historical, cultural, and social context from which they arise. My proposal for working with learning capital follows the strategy of social recontextualization, which seeks to avoid a naïve naturalization of scientific facts. This does not dispute that social bodies are also bodies with a biological background and are involved in physical, genetic, etc. evolution; but solely or primarily looking at the nature of such bodies cannot offer an explanation of the social or of learning. Currently, we are unfortunately still far

<sup>1</sup> Jürgen Habermas (2008) sees two tendencies of the modern age in orthodox religions and naturalistic worldviews, both of which always require critical reflection.

<sup>2</sup> The high level of fictionalization and speculative power here can be seen for example especially in Skinner’s famous educational novel “Walden Two.” A classic criticism of these ideas can be found in Devereux (1976, 1979).

away from the transdisciplinarity needed in this area. A theory of learning capital may help us to avoid simplifications in education, at least it helps to resist naturalization.

## (2) *Universalizations*

Some representatives of disciplines look for universal laws that are supposed to determine once and for all what reality “is” and how it functions. However, this contrasts with the qualifying and legitimate claim that in the sciences it is also about verifying all claims again and retesting them. Even if because of conventionality more agreement can be found in the hard sciences than the soft sciences, every form of universalization has shown itself to be a hindrance for scientific advancement. This is especially true for learning, which is always associated with expectations that are culturally dependent and is also constructed and executed in a way that is embedded in cultural contexts. In Confucianism it made sense to memorize entire books in order to pass tests requiring reproduced knowledge and to ascend as a civil servant. But in today’s world, this method would be totally counterproductive because and insofar as learners have access to a wealth of information sources and are in need of lifelong learning to acquire and apply knowledge oriented toward skills and tasks. This may change in the future. At the same time, we have to admit to all learners that it is at any rate impossible to make universal claims about the correct and most effective method of learning. Why is this? There are a few reasons:

- In modernity, learning was organized in lockstep form for large groups in order most effectively to fill a limited amount of time with as many heavy topics as possible and present them in a way that could be monitored. Inevitably, learners were constructed in a unified model of development, which appeared to have universal stages of development and could always be used in the same way. It was only later that research on education could see that this model only served the practice of teaching but did not correspond to the abilities of learners. When considered up close, learners are all very different, learn at their own time, and have preferences in learning, which are not supported enough in the lockstep learning approach.<sup>1</sup> In this respect, we see significant disadvantages as a result of this approach and attempt to compensate for these through additional methods of differentiation, even if individualized teaching is offered far too seldom because of costs. The functionalism of this universaliza-

<sup>1</sup> Because these characteristics can only be seen in longitudinal studies that are very costly, there is insufficient empirical research here. But in a comparison of very different individual studies, the differences in pace and paths can be seen very well. On this, see e.g., Howard Gardner’s results and projects (Gardner, 1991, 1993, 1997, 1999, 2000, 2004).

tion shows results in practice that are based on the idea of equal treatment in lockstep, but comprehensive individual support for all cannot be promoted sufficiently against this trend toward education factories and the advantages primarily for the better off.

- For us today, learning appears to be a strongly subjectively determined process, which particularly includes emotional aspects in addition to cognitive accomplishments and social motives. People are very different with regard to such factors and cannot be judged without individual and concrete approaches. What we measure when we undertake comparative measurements on learning pace, outcomes, certificates obtained, and degrees, etc. are social comparisons, which only describe what we produce in the now dominant lockstep approach. If we want to draw universal conclusions from this, then we would have to say that learners from better-off families *are* also better learners, which is a fallacy with regard to the possibility of learning because they are this way only because of *their* better position. We first need to investigate what happens if the disadvantaged learners are better supported in order to be able to make a fair comparison.
- There are additional factors that strongly determine learning and that also vary subjectively: adaptation and assimilation strategies, perseverance and toleration for frustration, resilience, and coping strategies. Any universalist view becomes clouded by this variety of relevant factors and impossible to maintain.

However, even if such universalizations regarding learning and theories of education cannot hold against this background, this does not mean that learning should be described arbitrarily. We really have to change our horizon of expectations: learning can be conceived of as different learning for different people; common expectations and experiences, especially comparable results regarding degrees that were attained or not, can be statistically evaluated in order to identify trends in success or failure; and we can, for example, also learn from successful or failed educational biographies as examples. We also have to recognize that as participants in a culture we always make context-based claims and cannot occupy an objective viewpoint outside of these contexts. A theory of learning capital may help us to care for all these contexts and to avoid abstract universalization.

### *(3) Empirical reductionism*

The capitalization of learning and education exerts enormous pressure on the sciences. In order to legitimize the use of financial resources, whether this relates to customers or the state, strong cost-benefit analysis have been developed, which are more or less supposed to lead to a constant evaluation of educational systems. Empirical research methods have thus become dominant, which attempt to make the most significant possible claims about the



success or failure of education in the shortest possible time. One turn oriented toward empirical research is clear to the educational, social sciences and psychology. But because the desired measurements are generally not designed in terms of long-term basic research—these are too costly and counterproductive for fast academic careers—and instead follow the quick flow of changing learning contexts, strongly reductive methods have had to be developed both with regard to quantitative and qualitative research aims. Contradictory developments can be observed here in this regard:

- On the research side, reductionism leads to limited questions that are usually investigated in very small groups and tend to involve simply constructed surveys on attitudes, expectations, and so-called objective data (such as degrees attained and grades received etc.) rather than concrete on-site observations according to previously formulated comprehensive theoretical models. Because of the pressures to publish in academic careers, this tendency is increased on the research side because the number of publications takes precedence here over the quality of a comprehensive study. The consequence is a tendency toward isolated individual results without a complex relation to action or theory. An accelerated research methodology with constantly new specifications and minimal modifications leads to short-term and often short-sighted results.
- On the legitimation side regarding sponsors or the academic mainstream, people often like to hear about and see confirmed what they already expect or what is politically desired. This is often also due to the award practices for third-party funding that is provided for such research and that is bound to a previously approved application, which has to pass the hurdles of review by those who often act as buyers (the pressure of legitimation) or who embody the academic or scientific mainstream or at least strongly support it (the pressure to adapt).
- Finally, empirical research is also left with little time to develop theoretical foundations because the measurement period for third-party support for empirical studies only rarely exceeds two years and is accordingly aligned with its own cost-benefit conditions.

When learning capital is studied today, particularly for example educational inequality and its causes, there are very different structures for observing the problem, collecting data, and interpreting this data. Because empirical studies always proceed reductively, i.e., they pose questions in a way that reduces complexity, certain aspects and perspectives are always chosen according to selective interests. In order to assess these selective interests, it is very important to look at the background theories upon which such research is based. Educational inequality is a metric here, which is certainly closer to the question of education and further from the economic situation. Assuming that the state would provide more support for the economic resources of the lower

classes through a minimum wage and special tax benefits, this would not at the same time logically mean that education would thereby increase in the households. But it would be equally rash if we would therefore only focus on educational inequalities that are passed down through generations because in the final analysis without better economic resources the educational level of families in disadvantaged positions would not rise. Unlocking such systemic connections is especially difficult for empirical research because and as long as it relies on the simplicity of explanations suggested by easy measurability.

To determine the nature of educational inequality, empirically the inequalities of opportunities as well as the inequality of results have to be taken into account. The first aspect refers to structural components that have to be defined and related to one another. This also includes, for example, a concept of forms of capital that have to be interpreted in their volume and their ratios to each other if structural statements are to be made. The second variant can already be satisfied with statistical results, which it interprets as statements about the actual conditions. But it cannot thereby sufficiently draw conclusions about causes or concepts that might possibly lead to an improvement in the situation. Through this variant, one learns very little about causes but a lot about the distribution of results with regard to different groups. If the difference between research approaches that is associated with both aspects is not sufficiently noticed or recognizable, then confusions are inevitable.

Another example: from the educational results, one cannot necessarily draw conclusions about the educational participation of certain social groups, as is evident in particular with elite groups (nobility or the business elite). They can, for example, decline the usual bourgeois education or interpret it in a very special way without at the same time having to suffer disadvantages in social or economic status. The statistical results thus also cannot reveal the delicate mechanisms that arise in the process of social differentiation and are then used. Nevertheless, the results are not unimportant. However, they always require a complex model of interpretation, i.e., also critical reflection on the adopted perspectives, so that they do not just end up in a mere survey of data, which also does not even survey certain empirical data because the approach remains blind to it.

For Bourdieu it is crucial here that there are many lines of difference in the forms of capital, but not all are in every case equally relevant to the production of inequalities. What is important for him are those that demonstrably produce inequality by not merely being used for the individualization of certain wishes or forms of life but act as differences that produce social inequality. It is relatively easy for empirical studies to represent differences in lifestyles, expectations, wishes, and results for people in a comparison, but it is more difficult to reconcile this with an interpretation of mechanisms that at the same time

also grasps the process of the emergence of inequality. In particular, in educational research, the all too rarely practiced qualitative research areas of empirical reviews of life histories and deep investigations are seldom seen.<sup>1</sup>

Statistical analyses, which are currently dominant in the research on inequality, show correlations, for example, between social position, participation in education, and educational outcomes. Generally, GPA, achieved grades by parents, scores or test scores in schools, PISA tests, dropout rates, college or university entrance statistics, and college or university completion rates are used to measure educational success. However, such data alone cannot explain how exactly these results have come about. For the most part, these studies even consciously leave this out of the picture by only showing the results, which appears equivalent to a scientific explanation. But this reductionism capitulates when faced with the real task at hand. Through the positing of multiple variables that measure differences, this reductionism has lost sight of the task of interpreting the actions of agents and reflection on their participation in certain social conditions. It should not just be a matter of only checking phenomena according to lists of features. An associated blindness to theory leads to a blindness in empirical studies because increasingly they commonly investigate what is statistically available as material and not what a theoretical model suggests is relevant for the investigation and through which new measurements are supposed to result.<sup>2</sup>

Even limited reductive empirical approaches obtain data that is still controversial in terms of its legitimacy. An example here is the PISA studies that allow for comparisons of countries through the international comparison of school achievements for skill-oriented performance. PISA is also reductive. In particular, the instrument does not present long-term studies about how a learning environment can be designed on site sustainably over a long period positively with regard to the educational success of as many learners as possible and developed in an individually differentiated way (such studies are very rare) but surprises us with snapshots of certain comparisons of achievement from different subject areas. It has to be clearly recognized here that the PISA researchers are by no means neutral observers of the development of education and skills in different countries but attempt to comply for their part with the capitalized form of action of learning. It is regarded as fitting for people's needs in life today.

In light of the capitalization of learning, some are calling for the old standards of education and training, which they would like to pit against any changes. But the problem of capitalization cannot be dealt with in this way if

<sup>1</sup> Bourdieu (1999) provides an exemplary qualitative analysis in his study "The Weight of the World: Social Suffering in Contemporary Society."

<sup>2</sup> David R. Freedman (1987a, 1987b, 1991) already complained about and criticized this at length several decades ago.

we construe a dualism in the schema of old forms of learning action (= secure middle-class education) and new demands (= deep capitalization) in order in the end to play the advantages of the old system against the weaknesses of the new. If arguments lament the growing capitalization of learning and education, and if they see the decline of the educated West in this capitalization, without at the same time sufficiently considering that the state of the educated middle-class world already had its own major difficulties and injustices, then they approach things in a way that ignores history. A broad study of the history of forms of capital and the way they operate will protect us against such one-dimensional thinking. At least it allows us to better assess the interests of different groups in the economy, politics, and expertocracies. I also do not believe here given the real power relations between economy and science that the current knowledge community has actually made science and its expertocracy so powerful that it could play a particularly assertive role against the ownership interests in economy and politics. Rather, the reverse is more likely: the expertocracy is repeatedly used by the assertive powerful groups in society in order, by means of evaluations, legitimations, discourses etc. to support what is supposed to be defended or demanded in the existing ownership situation for the advantaged (see Crouch, 2004, 2011). This is precisely where, for example, PISA or the OECD requirements present a model that stands in the ambivalences of liquid modernity:

- We should no longer expect from any model that it is constructed free of domination or power. The PISA model reflects the forms of action of capitalized learning insofar as it constructs applicable skills for the economy and life in a cross-country comparison but does not want to examine the quality of educational knowledge. The demand in view of the forms of capital here is that education and training are seen as essential factors in order to convey skills as widely as possible among the population; this is supposed to work against inequalities and allow as many learners as possible to achieve high skill levels (measured according to the PISA test). Behind all of this is the simplistic idea of “human capital” (see Keeley, 2007), which defines people as economic factors (for themselves and others) but at the same time wants to provide all people with such capital in accordance with the democratic conception of equality of opportunity.
- From this basis, PISA and OECD initiatives are directed against the hegemonic ownership practices of national groups, such as conservative groups that are primarily oriented toward elites in order to exclude other groups. Comparing the school-systems worldwide, there is the hope to open the highly closed and often strongly and too prematurely selective school systems, to show developments in the global understanding of

education and training, which by means of capitalization of learning aims at an improvement in opportunities for as many people as possible.

- In the OECD or United Nations expertocracy, the comparison of countries has led not only to the fact that criteria for comparison are discussed with more awareness but also to the fact that the results have produced pressures on democratic legitimacy in underdeveloped countries.
- Nevertheless, such studies are always applied in a highly reductive way. Comparison itself leads to the neglect of national particularities, and the construction of tests increasingly produce more neglect. Comparisons therefore always have to be considered in conjunction with other investigations.
- It can also not be denied that the expertocracy assumes capitalization. It shows that the shift to learning capital has already happened because currently no other dominant model of action can be seen in the globalization of education.

What is interesting is how the countries studied react to the PISA results against this background. Finland, which is consistently a top country, took the results as an opportunity to continue reforming the school system because they knew they were on the right track, but they still saw certain needs in the details (for example, better training of teachers for special needs education). Germany, on the other hand, did not undertake any fundamental reforms and instead raised the pressure with more material, less opt-out opportunities, and central exams without putting its own system in question in comparison with other countries. Instead of focusing on the options and measures in other countries with better results, it pointed out that measures from other systems could not be transferred to its own system, which it would not want to change under any circumstances. In this respect, the pressure on legitimacy through empirical studies fizzled here when it encountered the ignorance of the dominant policies and a reinterpretation of the results. In contrast with the hard sciences, where justified claims also flow into new methods of application, the results of the soft sciences are so interpretable politically that an interest-led reinforcement of ideas or a resistance to advice can take place easily. In Germany, this ultimately concerns the preservation of the *Gymnasium* (university preparatory secondary school) as the established educational path for the better-positioned middle and upper classes, which do not want to institute solidarity for the disadvantaged in the form of the education of similarly performing groups. The step toward a joint school over nine or ten years would sound like a revolution in Germany.

The easiest way to get around such awkward comparative studies such as PISA is through contract research in which the results are more predictable according to one's own interests. In this case, the government promotes the opinions that confirm what it would like to make politically legitimate. Or, one

relies on the power of habits. But in a time of academic globalization countries can hardly strike out on their own path if they want to avoid creating disadvantages for themselves.

Learning today is under pressure to prove its effectiveness. This also means the emergence of an age of empirical evidence. And this unfolding age of the dominance of empirical evidence in research and teaching has an important effect: it is ushering in the end of grand theories, which are the last meta-narratives of the educated. There may always still be some people who apply to the increasingly fewer positions for fundamental research, but given the decline of old education and the power of capitalization a broad knowledge foundation disappears. People who do fundamental research and who started entire movements and changes in the past with their thoughts independent of their empirical relevance and thereby became empirically relevant have become rare and will become increasingly rare in the future. They will be replaced by researchers and teachers who at the same time need to be managers and administrators of the third-party funds, which today are at the center of scientific careers, appointments, and awards. Professions are turning into jobs, which is also at the same time ensuring the elimination of secure and permanent positions with the elimination of tenure, for example (cf. Donoghue, 2008). Because the awarding of third-party funding has become a key criterion in the evaluation of performance for research institutions and individual researchers an appointment now also involves a certain dependency that leads the empirical claims in certain directions.

### *6.3.3 Science and Learning Capital*

Science has for a long time appeared in modernity to be an unassailable fortress of truth in which a scientific community has been assumed and idealized on the basis of the financial independence of professors (freedom for research and teaching on the basis of a life-long permanent position, i.e. tenure), a community that sees itself as obligated to increasing human knowledge independent of economic and personal interests. Josiah Royce offers a central explanatory theory for this, which begins from the idea that scientific truths cannot be produced by scientific observation alone but require the existence of a scientific community that examines and endorses such truths in accordance with ethical and social norms. The old idea of the university is in the background here which had to free itself from the bonds of ruling powers and religion over the course of centuries. Robert K. Merton (1973) created a nice meta-narrative on this in 1942, in which he focused on four aspects in the value of such science (see also the analysis provided by Radder, 2011, which I rely on):

- 1) *Universalism*: according to this idea, scientific claims have to be free from personal criteria (such as origin, race, gender, religion etc.) and should also not be subject to social factors. Even if socio-cultural contexts influence scientific knowledge, in the long run, the opposition to claims in a democratic process should give everyone the chance and opportunity to examine the claims for themselves if they have a certain level of talent. Universalism then shows what can be regarded as valid in the long term through the consensus of independent researchers (Merton, 1973, 270 ff.).
- 2) *Communism*: Merton alludes here to the collective possession of truth, which he regards as a good. Scientific truths are the product of collective work and thus cannot be private property if science for its part is not to be destroyed. The researchers can of course claim a discovery for themselves or claim to have discovered a truth, which can bring them recognition and fame, but keeping such truths confidential or patenting them has to be limited to a minimum through rational scientific ethics (ibid., 273 ff.).
- 3) *Disinterestedness*: a certain altruism or lack of self-interest should be exercised in the examination of scientific truths because science can be sustained only through publication, openness, criticism, and evaluation by others, the repeatability of experiments and studies, and thus the intersubjective verifiability of results. Self-interest in contrast has to be focused on motivating such research, on curiosity, and on openness for the results of others. Scientific and technological advancement in particular shows that science can present its “truths” in verifiable applications. However, the authoritative status of science can also be misused for improper purposes, which is why the freedom of scientific objectivity and integrity must absolutely be protected (ibid., 275 ff.).
- 4) *Organized skepticism*: science must impartially examine all claims and their justifications. This is a methodological imperative for research and a necessity for science as an institution. Claims have to be examined for their logical and empirical validity. Meeting the threat to this imperative arising through external interests that, for example, are not satisfied with scientific results that run counter to their interests requires the strict organization of science as an institution that remains skeptical of external influences and defends the freedom of science with its rules for testing validity against external influences.

These values describe very clearly how science is constructed in an idealized way today or would like to construct itself in order to resist capitalization, but the “grand history” of such a value-free and independent science is for its part really only an idealization. Although today a lot is being written against the capitalization of science, and often with good reason, unfortunately people

constantly forget that the past also never lived up to this ideal of freedom.<sup>1</sup> This can be shown in a short criticism of this meta-narrative about science:

- 1) *Universalizations* have always proven problematic in the history of science. “The Structure of Scientific Revolutions” (Kuhn, 1996) shows in contrast with such universalism that there is a certain conventionalism of the cultural time even in the hard sciences. The soft sciences are directly dependent on the respective attitude and mainstream of the time because of their very direct connection with the development of culture. The capitalization of science can be observed in the following aspects:
  - Not all people with similar talents find access to science (previously the disadvantages for women were very strong; today the previously existing disadvantages for those who are distant from education or are in a weak socio-economic position continue to exist).
  - The financing of certain research areas and topics limits the free pursuit of truth.
  - New and unusual theories are often overlooked in mainstream peer review and funding because they find little confirmation.
  - It is difficult to find funding for long-term research because its benefits and applications cannot be evaluated and demonstrated in the short term.
- 2) *Communism*: particularly with respect to results as a common good, limitations through confidentiality demands have been common for a long time due to military and economic interests; the ideal is overthrown everywhere where profits can be made through research (in terms of the economic interests of a country, corporations, companies, or groups of individuals) or where military advantages can be gained.
- 3) *Disinterestedness*: in the capitalization of their own careers, scientists are no longer focused only on motivation for new results, curiosity, and openness but are increasingly forced in their competition with each other to reject disinterestedness. The question is who in the past could really afford to put concern with science or humanity before their own personal fame or high income; in the practices, routines, and institutions of science itself it is clear because of the increasing influence of cost-benefit calculations, new management systems, and evaluations that self-interest increasingly underlies the idealized standards.
- 4) *Organized skepticism*: religion and state regimes were often the enemies of science in the past, but it is clear that the enemies are still lurking today: particular groups or “schools” want to promote their interests and

<sup>1</sup> See in particular the following standard works: Bok (2003), Krinsky (2003), Mirowski & Sent (2002), Resnik (2007), Slaughter, S. & Leslie, L. (1997).



preserve their power; dogmatism is constructed in methodology or approaches in order to offer protection from changes; economic use in particular is honored with confidentiality for research results; excellence initiatives strengthen the selfishness of certain people, disciplines, or universities; and differences in income and equipment determine the importance or insignificance of different disciplines and people. At the same time, in political speeches the old ideal of the supposed freedom of science and the university is praised, although such measures have for a long time in fact undermined this freedom. To keep the system from getting out of hand, the codification of scientific behavior that was previously obvious in the scientific habitus now has to be set, monitored, and evaluated in comprehensive rules, regulations, and guidelines.<sup>1</sup> At the same time, more and more cases of fraud against this code are coming to light.<sup>2</sup>

It thus appears inappropriate for these reasons today to draw on Merton's criteria as values in the discussion of the capitalization of the sciences, as Radder (2011, 91) proposes,<sup>3</sup> because the meta-narrative leads us to believe in an illusory idea rather than pushing us toward reality-based analyses. Even if Merton wants to defend science against attacks from the outside, as well as the profit interests of capitalization, his narrative was already too unrealistic in its time to provide more than a vivid characterization of overly high expectations. I am convinced that we should focus more comprehensively on the effects of forms of capital on the sciences so that we remain realistic enough. From my point of view, capitalization should be understood more broadly than previously with regard to the interaction of the forms of capital. The following basic points should be discussed from my perspective:

*Scientific labor as wage labor, and its surplus value:*

The commodification of science is the new technical term for describing the commodity character of knowledge. It expresses the idea that knowledge itself has become a commodity that can be exchanged for money (tuition fees, costs for literature, time required for dealing with information, high education costs exchanged for a later—better?—job as well as the idea that science itself now appears on the market as a buyer or seller, which, for example, means that schools and universities have to increasingly establish themselves on the market. When, however, the market with its profit-orientation

<sup>1</sup> On this, see the overview in Kourany (2008); see also Radder (2011, 94 ff.).

<sup>2</sup> The dark numbers have to be very high here given the enormous competition. It is not just that literary works are easy to copy; empirical data is increasingly also being doctored when it is difficult to verify by others. On famous cases of misconduct, see for example: [http://en.wikipedia.org/wiki/Scientific\\_misconduct](http://en.wikipedia.org/wiki/Scientific_misconduct).

<sup>3</sup> They are still suitable for discussing and criticizing the idealized illusions that science still likes to present today.

enters the calculations of science in its pursuit of truth, the idealized criteria and values that I pointed out with Merton are threatened. Now even those who still believed in the meta-narrative of the free sciences recognize that interest-oriented profit seeking can destroy the old image of knowledge. The consequences are abundantly clear: the sciences are judged only according to costs and efficiency; the production of their results is subordinated to measurements of benefit, and they are managed constantly in their research. Everything is for sale here;<sup>1</sup> profit maximization determines the price of truth,<sup>2</sup> and particularly in health and medicine profits determine the research;<sup>3</sup> students cannot escape this market because of the privatization of many institutions and high tuition fees nor can instructors who under this new form of management no longer primarily develop their knowledge but have to demonstrate their customer orientation.<sup>4</sup> Universities are also drawn into the struggles over the markets, which are typically reserved for companies. It is about securing competitive advantages against others, and these advantages are expressed in elite monopolies, good marketing, high external funding, placement of professors in commissions, and advisory boards with high “impact” (= high citation volumes). If we consider this competitive situation in the sciences, competition might drive society, but the concentration of resources on a few at the expense of creating a bad situation for many will not necessarily contribute to increasing knowledge in a broad sense. At the same time, someone who pays extremely high tuition fees at Harvard (Shanghai Ranking, 2011, 1st place) in contrast with the Technical University of Munich (ranking 2011, 47th place) no fees will not acquire x-times that much more knowledge at Harvard in comparison with Munich. People do not pay for knowledge but for a status that as a cornerstone of their personal biographical planning appears exchangeable as fundamental learning capital. In face of the shortages in places at elite universities, this pays off for applicants, but even those who do not secure a place have a good chance at significantly cheaper investments in their career as long as they acquire a degree that is in demand on the market.

Resnik (2007) clearly shows that even in earlier times political, social, and economic interests intervened in the acquisition and dissemination of knowledge, but the thoroughgoing capitalization of all areas of life in today's society leads to an ecstasy of knowledge as a commodity form with profit interests where more and more private profit interests become connected with science (see also Krimsky, 2003, Radder, 2010). This happens

<sup>1</sup> For a critical perspective, see Ridgeway (2004).

<sup>2</sup> Some classics here are Resnik (2007) and Mirowski/ & Sent (2002).

<sup>3</sup> On this, see for example Healy's (2004) studies of the pharmaceutical industry.

<sup>4</sup> This is not unfavorable for the sustainability of teaching, but instructors are prevented from doing their own research because of their high teaching duties.

- through the university that either markets knowledge as a commodity through patents, licenses, or training or helps the scientists by founding their own companies along with contractual obligations,
- through the awarding of private and state money that either follows private profit interests (by means of contract research) or in the case of state funding follows the scientific mainstream or certain lobby groups,<sup>1</sup> whereby the bureaucratization of distribution is often undertaken by means of application verifications and complex regulations,<sup>2</sup>
- through collective research facilities on the entrepreneurial and governmental sides,
- through the preferential establishment of certain complex research facilities that are well equipped (particularly in medicine and the natural sciences),<sup>3</sup> whereby money then is only handed out to these strong facilities according to the award criteria (*winner takes all*),
- through the posing of certain research questions or problems that could be eligible for funding,<sup>4</sup>
- through the concealment of negative research results and unsuccessful experiments particularly in the natural sciences,<sup>5</sup>
- through the establishment of management models that often allow universities less liberty than in private companies (factory model rather than research model).

Because the image of education has consistently been defined through the development of science, it is not surprising when these aspects spread in their effects all the way down to the lower levels of education. In their behaviors, many people adopt such capitalization as an attitude in their expectations for the future; but depending on the existing use values and their ability to be exchanged, they can draw different conclusions for the winning or losing sides.

<sup>1</sup> In 1919 in “Science as a Vocation,” Max Weber already discussed how universities separate the workers from the means of production just like capitalistic companies and create hierarchies that apply between the president of this company and its academic chairs. Weber reconstructs the logic of dependence in capitalism from its beginning in a very far-sighted way.

<sup>2</sup> A shortage on the side of the university has always already been inscribed here because people who give money in general want free resources from the university in mutual competition (so-called overhead costs) as a prerequisite to give external funds.

<sup>3</sup> At the University of Cologne, where I work, and which is the largest university in Germany in terms of student enrollment, a little over 50 percent of the resources go to medicine.

<sup>4</sup> For example, about 90 percent of biochemical research funds go to the 10 percent of diseases that are the most well-known diseases in the Western world. Money thus clearly determines the direction of research.

<sup>5</sup> Thus, databases are not made available to competitors, and as a result of competition they often have to expend unnecessary costs just to repeat unsuccessful approaches. From the perspective of science, such databases of failed attempts would be indispensable, but capitalization prevents this particularly in the natural sciences and medicine.

Scientific wage labor is chronically under-financed at its lowest levels, and junior people are mostly supported with precarious half positions (or other such partial positions) in order to produce results through full commitment that allows them gradually to advance in the system. In the publication of research, it is common in many disciplines that advisory professors are listed as co-authors, which in capitalistic factory work expresses the private property rights of the company over those goods, but this is not compatible with the scientific code of originality and priority of research results. If people constantly talk about the increase of knowledge today (roughly a doubling every 10 or 5 years—people disagree here), this reflects a conflict about surplus value in scientific wage labor. The “publish or perish” motto reigns in this competition, which means that the old is discovered as new, the new is reconfigured, the forgotten presented as new output, collected in a multitude of works people can no longer read, and anything that can be compared is compared, etc. Anything really new, creative, and unique is increasingly rare given this pressure, and in light of peer review, which relies on trusted and recognized approaches, it is increasingly difficult for new things to be seen, read, or understood. The proliferation of knowledge is itself one of the greatest illusions today, although the applied sciences in particular will do everything to defend progress through the marketing strategies of profit-oriented companies. There are certainly advances, but the steps are significantly smaller than the self-marketing strategies of scientific wage labor would have us believe in order to find and secure work.

Scientists are classified into various merit groups for wages, which can be seen in a ranked comparison of educational occupations. Even the salaries of professors in comparison with income from businesses appear undervalued and unattractive. As an author, one’s contributions to journals and books are for the most part unpaid and even have to be subsidized privately out of pocket. At the most, with increasing fame, income opens up in the form of ancillary activities, which the state usually also wants to participate in.<sup>1</sup>

Under such conditions it is not primarily economic benefits that drive people to careers in the sciences. The central motivations here are the attainment of the specific cultural capital of the academic elite, the attainment of cultural capital with high symbolic value, and the attainment of learning capital that expresses the special ability to prevail in scientific systems oriented toward competition. In scientific wage labor, people are increasingly striving for higher wages in comparison with other professions (even if this is never achieved in comparison with business), whereby private institutions pay significantly more than state institutions. Both have to offer a secure, permanent position as a compensation for declining the economic benefits that might

<sup>1</sup> This is often governed by regulations on ancillary activities. Many universities now also register patent rights for the professor so they can be significantly involved in the proceeds.

come with another profession. But the more tenure is threatened, the more the academic elite position sinks to the level of a mere job (see Donoghue, 2008, Washburn, 2005).

In such wage labor, a two-class system is also becoming increasingly visible: the subjects that produce profits involved in the application of patents, medical care, and monetary benefits—i.e., primarily medicine and the natural sciences, economics and other applied sciences—are regarded as “real sciences,” which are associated with better paid positions and amenities in comparison with the social sciences, cultural sciences, and humanities, which leads to a struggle for the distribution of resources at universities. The output-oriented measurements in university rankings such as the Shanghai Index<sup>1</sup> contribute significantly to this.

On a whole, the surplus value in science labor can be measured by the difference between the invested costs and the later income plus a secure job if tenure is achieved. In addition, the power of the academic habitus and the seemingly high freedom of work compared with other jobs is still a motivator to engage in science.

*Surplus value in science through supply and demand:*

Supply and demand girdle universities in two ways: on the one hand, they offer places for students, which are particularly expensive on the market if the supply of elite institutions can be restricted in the struggle with other institutions so that the learning capital of its graduates can significantly increase; on the other hand, the capitalistic market offers research funds in order to maximize private profit and appear to support the sciences through joint ventures. If both demands are ignored, then places will slide lower in the rankings, and if sufficient supply is not developed in the market the expansion of education or local shortages in study places can ensure the survival of the university.

The fear of universities being on the market appears new, but it has accompanied universities from the beginning. It was and is a labor market, a market of ideas that are sold and put into practice; and just because theoretical ideas cannot be patented, or because Kant, Dewey, Wittgenstein, Rorty, or Habermas cannot be economically capitalized beyond the sale of their books, or because the criteria for the evaluation of such research is very open and dependent on the attitudes of the time, it does not mean that they have to be less valuable than others. The recognition of the value of such theories occurs in part when at least the less valued theories can be transformed into symbolic use values (socially respected, culturally valuable, indispensable for education) in order to raise the position of the university in the rankings. But

<sup>1</sup> See <http://www.shanghairanking.com/ARWU2011.html> (updated annually). This ranking is however highly controversial in terms of its methodology. On this, see also [http://en.wikipedia.org/wiki/Academic\\_Ranking\\_of\\_World\\_Universities](http://en.wikipedia.org/wiki/Academic_Ranking_of_World_Universities).

for the users of such rankings, the question always remains what this will offer them as a use value directly in terms of their status, which they can later transform into an exchange value on the market. The more they pay, the higher the expectations are for a return on their money. One could back away from a peer evaluation of all research only if the state would have preserved the universities from the market as a refuge for independent research, but in the globalization of the markets this is increasingly being abandoned by all countries.

*Surplus value in science through illusion, deception, and fraud:*

It is primarily the desire for more money or recognition and fame that drives illusion, deception, and fraud, and this drive is a constant and complex factor connected with social, cultural, body, and learning capital. The competition for external funding has triggered a war in the academic world of all against all in less well-funded areas. To gain advantage in this war, scientists inflate their publications. In riskier forms, there are technical tricks for making your low-risk and uninspired research look good by referring to what already seems well-established and thus more readily supportable. This strategy is common with young researchers whose career and job prospects are the site of highly competitive struggles. Fraud through omissions and faked data, especially fraud that will not be detected as long as it appears plausible, is an opportunity to produce surplus value. Because these surplus values can be produced particularly easily, an increase of fraud is to be expected in this area just as has occurred in the economy in recent decades. The resulting loss of value can significantly contribute to the reduction of surplus value through scientific work because the objectivity of such claims proves to be too big a promise in the sciences. We have long ceased expecting such objectivity in other jobs.

Four forms in particular are used to construct status hierarchies as illusions (see Münch, 2014): (1) for visibility effects, you have to make the size of your institution and its stars present; (2) for complexity-reduction effects, you have to focus on significant data, for example, available external funding or the number of high-impact publications or other distinctive features; (3) the position achieved in a department through evaluations is regarded as “sacred”—this is the consecration effect, which serves as a benchmark for everyone else; (4) a significant additional mechanism is the well-known Matthew effect (“the rich get richer”), which has a particularly seductive effect because you cannot do anything wrong here: someone who has already received research funding has already proven that they deserve it, so it cannot be wrong to give them more in the future. This is how experts and project evaluators are pulled into illusion and deception in this field because they do not want to do anything wrong.

*Parasitic surplus value in science:*

The relationship between researchers has begun to be reversed after a long phase of autonomy and freedom in research and teaching. Where previously academic chairs participated parasitically as part of the university in its services through the use of its resources and support as well as symbolic status, the situation is changing today. More and more professors are now carrying the name of their sponsor, and the professors stand behind the brand with their own name. They end up resting on borrowed capital as a parasite, and this means they have obligations.

In the struggle for the distribution of resources, the parasitic status becomes even clearer with the so-called “excellence initiatives” that are being promoted in Germany today. These measures are fundamentally destroying what was previously a university system based on relative equality, high autonomy, equal status, and approximately equal infrastructure at least within disciplines. Using keywords from business—such as the introduction of competition, moving from equality to the elite, and the institution of elite universities—they advertise changes that sound market-oriented but that in reality fundamentally introduce a new central, regulated distribution system and re-evaluation of the sciences. The reason for this is simple. Throughout the world, tuition fees are being collected, which flow into services at the universities. In Germany, as in other countries that hardly collect tuition, there is an economic disadvantage, which is supposed to be mitigated by an internal reallocation of funds. The new figures are full of assumptions about efficacy, which are biased in a one-sided way by capitalization:

- “The rich get richer,” that is the apparent neoliberal concept that is constantly mentioned. This means that the winners and losers are set from the beginning. Someone who can get external funding in particular from business is ahead of those who still get at least something from state funds, and both are ahead of those who are left with empty hands. This consciously creates first, second, and third-class scientific disciplines and subjects. The first class is strong in research, aligned with the elites, and receives additional “excellence” funding; this class is also relieved of teaching duties and showered with profits. The second class still does teaching and research together, but it is under constant pressure to come up with the remaining modest funding without ever being able to reach the top ranks of research. The third class remains a mass of places and subjects that have to provide for a mass of students. Some countries already demonstrate what this means. In the United Kingdom, Cambridge and Oxford, or Oxbridge, embody the elite; in the USA it is the Ivy League, which is a league originally composed of eight football teams, in which Harvard, Yale, and Princeton have set the tone for a long time, but

today Stanford, MIT, Berkeley, California Institute of Technology, Columbia, and Chicago also appear under the top 10. Cambridge and Oxford also make it into the top 10, while Yale is in 11th place. What are the results of such rankings? Exorbitant tuition fees, high recruitment of the best researchers. Today Germany also wants to orient itself toward such “excellence.” But it does not have the high tuition fees that would allow it to finance this. So, the only idea that remains is to redistribute the university resources, which means some get a lot and the rest get little.

- Because of competition, the reorientation toward elite universities in Germany will in the short or long term have to take on models that are based on high tuition fees because the distributed resources will not be enough in competition with others. But in contrast with the leading private universities the question will also arise of why the public should use taxes to fund something that benefits only a few. The fiction that through the concentration of such funds more will come out of research on the whole is just wishful thinking and still has not been proven. This is because more might come out though such funded excellence initiatives, but at the same time the concentration of resources at specific locations will take funds away from others so that the resulting research will be limited in breadth, which may impact innovation through a lack of diversity. One result is certain: there is a merciless struggle for the distribution of the limited available funds for universities that favors subjects that do applied research for the natural sciences and medicine.
- It can by no means be claimed that the old state-supported university alone was very effective. It was often characterized by narrow-minded chairs, sclerotic forms of teaching, lack of interest in students, and deficient facilities since the transition to the mass university. Some reformation of this system would not hurt. But today’s reforms operate on the basis of mere redistribution and not better infrastructure. The ratio between instructors and students in particular remains unsatisfactory and cannot be compared with elite universities worldwide. The fraud in Germany university development lies in the fact that a minority will be relieved and the majority will be left with inadequate facilities.
- There will be significant consequences. Internationally, which university a person studied at is already important if someone wants to pursue a career at the top. Regardless of the individual achievements a person brings into the competition with others, they have to have a degree from a top-ranked university.
- The global disappearance or shrinking of tenure for professors is an indicator that the certification is increasingly more important as a cost-benefit calculation in contrast with education or knowledge as an end in itself according to the Enlightenment concept of modernity. Where previously the teaching and researching profession was saved from the worries of



the constant struggle for maintaining a position in order to preserve freedom and allow for the development of an educated habitus without commercial interests, teaching and researching now is just one job among others. This applies even at the highest levels of education, namely for professors.

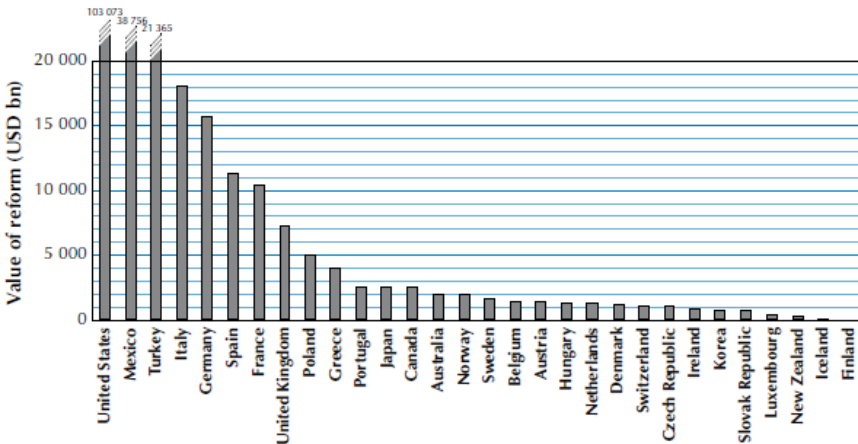
If we consider these points in context, then the orientation and development of science as a political task becomes clear. Politics and the state cannot expect that the sciences themselves wrestle themselves from these clutches alone if they do not consider and reflect on their own development. What is at stake here are not only small “exotic disciplines,” which struggle for survival at universities because of their lack of relevance, but fundamental research in all areas particularly in the humanities, social and cultural sciences, which provide for the development of reflections on democracy, freedom, and claims to human dignity, justice, education, and other essential questions. In view of the relationship between public services, as embodied by the sciences, and commercialization, the tension between the egalitarian support in democracy and the inequalities that result from capitalism become a persistent problem, which has to be addressed in order even to come to constructive compromises and make opportunities for the just treatment of people possible. The system as it is, is founded on money in two ways: tuition fees and funding. The students as well as professors obtain parasitic gains if they are attributed to the elite levels by comparison. The way to access these levels is costly and bound to alumni and tuition (impossible without inheritance in the background), but the surplus values then are often extraordinary.

#### *6.3.4 Learning Capital and Equity*

The international comparisons of school performance have revealed significant differences between the OECD countries. These differences initially already consist in the effort countries put into education. Thus, the quality of education in many countries and the concern with greater equality of opportunity for disadvantaged learners is undervalued because the effects on the economy and society of such investments do not show themselves immediately but only do so in the long term. At this point, I would like to consider the connection between governmental policies with regard to learning capital and economic growth (see OECD, 2010).

When we look at the comparisons of school performance between industrialized countries, we see very different results. In some countries there are favorable relationships between socio-economic origin and migration background regarding school success, and in other countries these relationships are unfavorable. Particularly in countries that offer adequate provisions in

structural, financial, and social terms, one can see success that could raise equality of opportunity and equity in education. What is also measurable in contrast is that in some countries far too few educational degrees are obtained by broad groups of students. OECD experts have tried to measure the economic gains in view of an increase in the GDP of economies that would happen if states reached the level of Finland, the former top Pisa country, through reforms and investments. In chart 27, the estimates show what significant effects could be expected:



Note: Discounted value of future increases in GDP until 2090 due to reforms that improve student performance in each country to reach the level achieved by Finland, at 546 points on the PISA 2000 scale (average of mathematics and science in 2000, 2003 and 2006), expressed in billion USD (see also Table 2).

*Chart 27: What Economic Benefits Would Pisa Countries See if they Achieved the Level of Finland? Data expressed in billion US Dollars. OECD (2010, 7)*

The claim here is that a good education and qualitative educational system is also essential to economic growth. Even if projections such as those in chart 27 can never be exact, from an economic perspective they clearly show the main tendency that a high-quality educational system can produce positive effects for the society as a whole:

- In particular, there is higher economic productivity because skilled learners have the cognitive abilities that are necessary for innovative technologies and companies (this allows for targeted scientific and technical progress).
- There is a high degree of flexibility, mobility, and availability of workers, which allows for stronger responses to fluctuations in the market and innovations.

- Skilled workers generate less costs through unemployment, health costs, and costs due to deviant behavior.
- Skilled workers better contribute to the development of a common social consciousness, democracy, and culture that also involves diversity, respect for others, and communicative skills.

It is critical, however, regarding such exclusively economic analyses to note that these demands on citizens and workers should not be understood in a one-dimensional way but also involve obligations on the part of the state and sufficient motivating incentives for individuals:

- Students' skills have to exceed the needs of narrow capitalistic profit interests in breadth, depth, and individual opportunities because the school systems do not just serve the purpose of orienting students toward the labor market and the use of their labor. But the reverse, namely that schools should not do this at all, is naïve and illusory because the education system cannot be a world that is isolated from capitalism.
- In liquid modernity, the increase in flexibility, mobility, and availability leads to students developing skills that are relevant for the labor market. But the educational system cannot just understand and design this as purely economic training but has to help develop skills that also enable critical attitudes that confront the demands, the changes in liquid modernity, and the growing insecurity in all professions and jobs realistically. It should enable the highest possible degree of freedom in respect to different approaches to the labor world and life and the use of choices.
- Skilled students cannot prevent unemployment, illness, or behavior that is harmful to society. But they acquire skills and attitudes that in general allow for better success in dealing with such phenomena than if the students were unprepared or unskilled.
- Skilled students more easily become responsible citizens who use and defend their opportunities for participation. This is crucial for the security and development of democracy itself.

If we take these points together, then it must be in the interest of all democratic states to create as effective an education system as possible, which operates at as high a level as possible in comparison with other countries in order over the long term to secure growth, raise productivity in society, and at the same time distribute opportunities in society as equally as possible. Chart 27 regarding the OECD countries also shows that the countries that can strengthen their GDP in the future currently are in poor starting positions because they do not sufficiently use the learning capital in their societies. They are countries in which the gap in equity is particularly large.

One can also ask along with Crouch (2004) whether—given the increasing over-emphasis today on the role of economic enterprises in Western democracy—the imbalance with regard to state duties that are supposed to prevent disadvantage has become so large that democracy as a whole could perish. This is because the changes in neo-liberal markets have become so massive and affect so many areas that state policies regarding better equity are at a disadvantage. There may of course be occasional possibilities for diverting political development at least in its approaches from following a seemingly unstoppable course in the direction of post-democracy as Crouch calls it. According to Crouch, one can try to do this at three levels: first, with measures that attempt to limit the dominance of economic elites; second, with reforms of political praxis in the direction of more democracy; third, through the expansion of opportunities for action that can and should be opened for citizens.

These three possibilities have to be realized in the social as well as individual development of learning capital. Learning capital in particular can help people, even those who are educationally disadvantaged, increase their opportunities when they lack economic capital. Other possibilities for evening things out can of course also be seen in cultural, social, and body capital, but learning capital has the most sustained effects. It already begins with the first point mentioned by Crouch. But how can this happen concretely?

One important question is the extent to which learning capital can take precedence over other forms of capital in a way that promotes development and can be realized in a way that opens opportunities. We usually cannot just socially transform an existing ownership of economic, social, cultural, or body capital fundamentally overnight, but through state regulations, there is the possibility of directing learning capital over the long term, and steering and weighting it in such a way that to a certain degree it also supports people who would otherwise have worse opportunities in their development. This, however, can happen only through clear increases in educational spending which would allow us to meet the basic requirements. The international comparison already shows significant differences here.<sup>1</sup> What is interesting in development is that previously underdeveloped countries have realized more clearly than industrialized countries where the worthwhile investments in the future are. Thus, in a comparison of Korea with the US and Europe, it can be seen that 40 years ago the comparative strength of South Korea did not lie in the manufacturing of microchips or cars but in rice farming. The Korean Government decided to invest in education and technology, change the comparative strength of the country, and raise the standard of living of the population. They were successful and thereby changed Korean society. Korea's experience and the experiences of other successful countries hold some lessons for the

<sup>1</sup> On the expenditures for educational institutions for all educational areas, see for example OECD (2010 a, 235).

United States and Europe: where should our dynamic comparative strength lie in the long term, and how do we achieve this? (For a concrete analysis see Stiglitz, 2006, 2015)

When it comes to increasing educational equity, the increase in education spending is, however, associated with other conditions, which leads us to points two and three in Crouch. Even if there is disagreement in the research here since a lot of different interests, particularly for securing existing ownership conditions, are involved, and there is no value-free description, I would like to point out some crucial things (which are often elements that are already proven with regard to countries with more equality of opportunity) from my perspective the following insights should be pursued:

- The establishment of an inclusive school system with clear rules against discrimination.<sup>1</sup> Free early childcare with comprehensive support as an essential means of working against early disadvantages.
- The loosening of the narrow time frame for decisions about educational paths by delaying it as long as possible in order to sufficiently support students' potential for development.
- The education of heterogeneous groups of learners because adequate support for all without sacrificing performance is possible only in such a heterogeneous setting. These classes cannot be too large,<sup>2</sup> and in this inclusive setting comprehensive assistance in terms of special education and cooperation with social workers, psychologists, and medical services have to be secured.
- Curricula can also be streamlined, simplified, oriented toward higher skills, and targeted language support in heterogeneous class groups can also be undertaken even for those who have less familiarity with education. Specialized subjects should no longer dominate school subjects in terms of content and method; rather, the material has to be prepared pedagogically and didactically, referred to everyday practical educational content, and made linguistically accessible for all.
- There should be an orientation not only toward successful school certificates but also toward training certificates that are prepared for at school in cases where businesses do not offer training spots for particular students.

There are also additional tasks that can be added here. In economic development, the wages and incomes, incentive systems, rewards, and bonuses have developed very differently for different activities. This diversity applies

<sup>1</sup> This is a matter of rules for inclusive education. On this, see also Booth/Ainscow and the “Index for Inclusion” under <http://www.csie.org.uk/index.shtml>.

<sup>2</sup> Accepted class sizes are very dependent on customs and cultural styles. Already Dewey claimed in “School and Society” that a teacher-student-ratio one to eight would be optimal. We are still a world away from this profound understanding of a good learning environment.

to different activities both across sectors and within sectors. The arbitrariness of payment is especially evident when the same work is paid differently, e.g., pay differences between men and women, between different locations, and within a company. In the banking sector, one can see a special tendency toward enrichment because payment is set arbitrarily high here. In particular, the bonuses granted by banks appear disproportionate. Thus, for example, in 2008, a year of record loses, the US banks offered almost record bonuses totaling 33 billion dollars. Six of the nine big banks paid more in bonuses than they made in profits (for a comprehensive discussion of this see Stiglitz, 2010). But what would more equitable performance-oriented compensation look like? And what is its relationship to learning capital?

I first want to consider the kinds of wrong incentives that should be avoided in society through regulations. Let's begin with piecework. If one pays according to piecework, workers will try, if they have any freedom, to undercut the intensity of labor and produce inferior goods, i.e., somehow escape high burdens in order to make their numbers. Such piecework also existed in the finance sector when, for example, real estate agents concluded as many contracts as possible without regard for creditworthiness. They were motivated by the wrong incentives. Managers who are provided with stock options have the incentive to drive the stock prices up in as short a time as possible, make their balances look better, or in the worst cases manipulate profits so that the markets react positively. Stiglitz (2010) sees this as a major factor that drove the financial crises. Bonuses that are oriented by short-term incentives and based only on profits and not losses are socially problematic even if they appear beneficial individually. Individual benefit is opposed to society here, which has to make up for the damages in some way. What did the financial crisis show? The mismatch between overall economic effects and personal incentives caused problems in the crisis. On the one hand, financial market players pocketed whopping profits, but they did so on the basis of high risks. And when the risks had to be paid for, it became clear that the risks were not backed by the profits gained. Society then had to pay for the risks because they threatened to throw the entire economy into chaos.

This kind of piecework also exists in the educational sector when less focus is placed on people's individual development than on certifications in ranked comparisons gained under high pressure with regard to time and material. The more education as a mass commodity is placed under this pressure, the stronger the effects of piecework are and the more teachers are rushed in terms of schedules and material. The risk here is in the growing reluctance or "burnout" on the part of teachers and apathy on the part of students for which society will also eventually have to pay the costs.

Another comparison also makes sense here. Economic capital has for the most part left the direction of companies to third parties such as managers

and executives. Thus, today most producers are employees rather than owners of companies. The well-known economist Herbert Simon describes how this has led to a completely new mentality of company management: who monitors the maximization of profits if the owners no longer have direct access? Basically, “there is no difference between for-profit companies, non-profit organizations, and bureaucracies. All of them have the same problem of motivating their employees to work toward realizing the goals of the organization” (Simon, 1991, 28). But what Simon could not yet see at the beginning of the 1990s is the exorbitant increase in “wages” and bonuses for these managers who are oriented toward maximizing profit and through this incentive promote short-term gains. This can lead to a major disadvantage because in contrast with non-profits, the companies are at greater risk. In the educational system, these opportunities for profit obviously do not exist for individuals nor do such economic failures exist, but a similar problem of leadership and failure effectiveness does exist. While it was still expected in older conceptions of education that all teachers at the same time symbolize and embody what “comprehensive education” should be, they have now become employees of an underfinanced and overburdened system whose goals they are often involved in too little and whose structure they themselves believe does not make sense. When, for example, we look at schools today even in rich Western countries in addition to a lack of readiness for leadership we also get the impression from the facilities that they are actually bankrupt. Only those countries that finance their schools well and give responsibility for curricula, material, and the educational environment over to their teachers can expect a better performance record and positive attitude.

Against this background, the state has a double duty to ensure greater equality of opportunity:

On the one hand, they have to create better conditions for greater equality of opportunity and more equity. The bottom line for actual governmental actions is very clear here. The level of education and educational participation should be as high as possible especially in the secondary and tertiary levels in order to meet the challenges of a differentiated but at the same time highly developed country with increasingly skilled labor. There have to be comprehensive state efforts to leave no adolescents behind. Although politicians in different parties in different countries repeatedly emphasize this, these efforts are in fact quickly abandoned in difficult budget situations because such measures only work over the long term.

On the other hand, state regulation in the educational domain cannot deliver everything itself. It is also crucial to give the responsibility for good basic facilities to local stakeholders in order thereby to enable participatory and democratic action that monitors the success or failures through local authorities. The Scandinavian countries in particular show that such a system is more successful, makes the stakeholders happier, and can further equity.

## 6.4 The Individual Use of Learning Capital

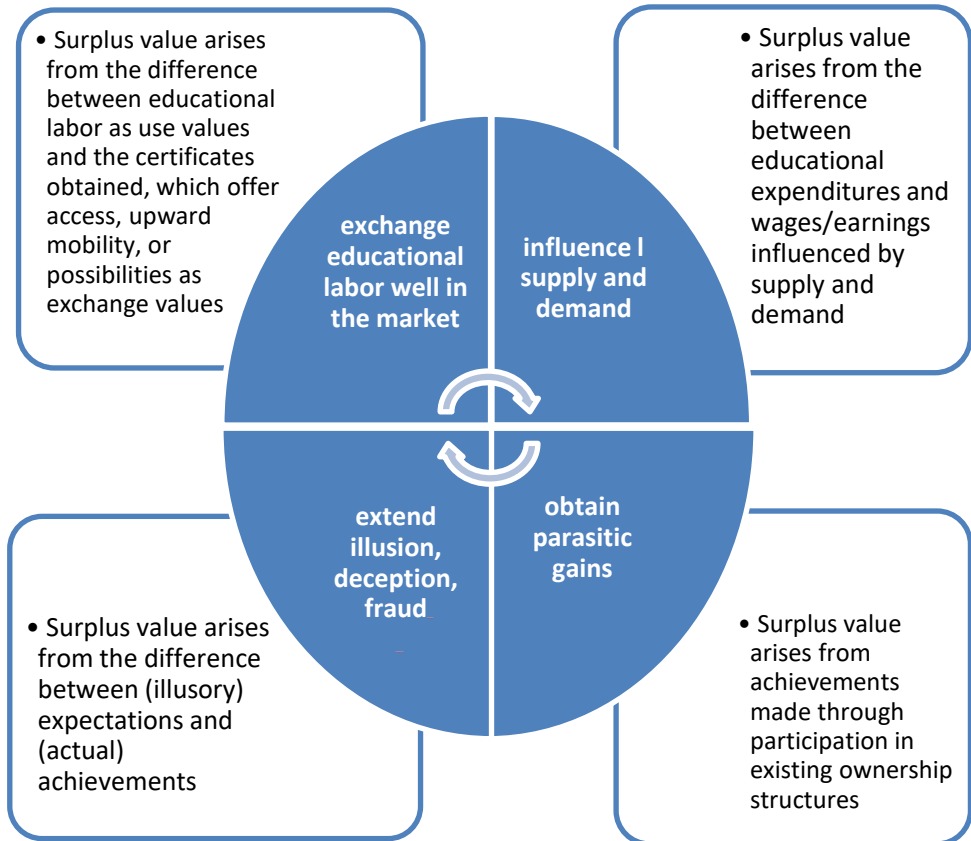
For surplus value and its creation, the owners of this form of capital have to recognize the forms of difference from which gains can be derived in relation to costs: if you want to plan, change, or positively shape learning capital as an individual, the main limiting starting points are always the other forms of capital that the individual possesses. Here we must be especially aware that a big gap exists not only between the rich and the poor in the rich Western countries but between rich and poor countries, too.

The unequal distribution of wealth shows that even the affluent society is no idyll where great opportunities for individualization are convened through learning for the masses. However, in the field of education in particular there are opportunities for action because upward mobility from socially, culturally, and economically unfavorable positions can primarily be achieved through learning capital if it can be achieved at all. Here, the owners of this form of capital have to recognize the forms of difference from which gains can be derived in relation to costs. And as with other forms of capital, it is always in the interest of the individual to make as many preparatory efforts as possible through intensive educational labor in as many educational environments as possible in order to be able to make use of the advantages afforded by learning capital. Chart 28 (see *next page*) presents a summary again of the individual strategies from which surplus value can originate.

- 1) First of all, it is the difference in time, effort, and resources expended that can produce benefits with regard to access, advancement, and improvement in positions for oneself or one's descendants or family. The currency for the effort is the use values attained and certificates achieved in connection with a habitus (a habitus that is culturally, socially, or bodily shaped) in order to realize opportunities for capitalization.
- 2) Everyone is in competition regarding use values, learning outcomes, and certificates, not only with each other but within different groups and circles and in disciplines and specializations with different inclusion and exclusion mechanisms. If I as an individual can only show learning outcomes that are common to the masses, i.e., I do not distinguish myself in an obvious way from many others through particular achievements or additional skills (more degrees, foreign languages, youth, age, etc.), I have to look for opportunities where my use values and skills are often in demand at low prices. The study of subjects that are in demand professionally but are unattractive for most students is particularly effective.
- 3) "More apparent than real" is the motto that all learners are operating under today in learning capital. In a time where knowledge is increasingly available online, it is more important than ever to present oneself, com-



municate well, and practice skilled knowledge management. This increases the tendency toward illusion, deception, and fraud. The more surplus value there is to be gained in an individual area, the greater the incentives are to use dishonest practices for improving gains.



*Chart 28: Forms of Surplus Value for Individual Learning Capital*

- 4) Social and, above all, cultural capital are essential components in addition to economic capital of parasitic gains in learning capital as well. The learning capital gained through parasitic participation in the family household varies across countries depending on educational equality, but it is consistently effective.

Learning capital, which has been described here in terms of the four aspects of the creation of surplus value, grows as such surplus value in actions. It is essentially nourished by the differences that were pointed out above. But the differences are only effective when they can be put to use in actual actions

as exchanges on the market. Thus, for example artistic or musical skill remain mere use values, but they remain silent as capital if they cannot be brought to the market. Often there are only limited moments for action or windows of opportunity for which learning capital is formally relevant such as hiring, promotion, a raise, or opportunities for freelance work. Once we have cleared these hurdles, these use values reveal in our concrete work whether we meet the expectations and can actually achieve a wage or income over the long term. We quickly forget then that learning capital was the starting point because we have to deal with other things while we are performing concrete work. And we also perhaps all too quickly forget the others that are still standing in front of this window looking with concern at their unrealized opportunities.

A measurement of the differences in surplus value in learning capital cannot be made precisely, but learning capital is clearly expressed in the incomes people attain (whether it is wage work or self-employment). As accurate measurement variables, we have the expended costs that are necessary for the production of a commodity and the pre-products that go into the commodity, and the price that can be commanded. But learning is only ever included here implicitly; it is never counted precisely as a cost factor and then deducted from the wage amount or counted as a price for independence. In short, we do not list the costs that were necessary for all use values in learning. Nevertheless, the costs for an educational history do not remain entirely uncalculated. In the calculations according to market practices, the following considerations at least are included:

- In many countries, payment regulations determine groupings into certain wage and income levels according to educational qualifications (learning capital expressed in use values and proof of certifications and time expended). This partially ensures comparability even if supply and demand in particular cause the actual incomes to fluctuate dramatically.
- Comparison scenarios for careers show that certain specialties and skills command significantly higher incomes than others. This is particularly true for the finance and real estate sectors. However, such calculations should also always include job security and other factors such as stress and time spent at work.
- Long-term effects of learning capital over an entire professional life can make clear that some fluctuations balance out over the long term but others increase. Learning capital shows precisely in liquid modernity that not everything is regulated by the market but is also regulated by the motives and interests of learners who do not always choose disciplines or skills that would ensure a higher income.

If we consider the current findings on the present situation of learning capital in context, the following points can be established regarding individual opportunities:

- Inequality in opportunity already begins in Kindergarten because it is here in particular that the linguistic requirements for educational success are set. The risk factors for lower attendance are a lower socio-economic profile and migrant status. This also affects secondary schools and is strengthened there through selection. The reverse is also true: the higher the degree one achieves, the more likely it is that one will have higher and more secure earnings (see OECD, 2012).
- In the course of recent decades there has been success through the expansion of education on the one hand in expanding educational opportunities, which, however, on the other hand, has led to devaluation of previously elite degrees. Today one receives significantly less money for titles and degrees that were previously coveted. Thus, in an international comparison readiness for college is increasingly seen today as the minimum goal of a first degree.<sup>1</sup> The expansion of education has started a cutthroat competition that pits higher and lower qualifications against each other as distinguishing features.
- The costs for investment in one's own learning capital thus increase significantly. The more self-evident the achievement of a college-preparatory qualification becomes, the more distinguishing features are sought in private schools, long stays abroad, elite internships, and international elite rankings for universities. The height of costs is nearly unlimited. Social access to a university also becomes a social hurdle. The fundamental trend is evidence that the higher degrees consistently command better incomes.<sup>2</sup> The acquisition of learning capital is thus crucial in a sustained way not only for better-paid jobs but also for lower unemployment, better health and a longer life, and less social costs through deviant behavior and social problems.

The pressure on individuals to acquire learning capital in a more comprehensive way grows at the same pace as the growth in the tendencies of societies toward individualization. This also leads to costs for learning capital increasingly being seen as an obligation on the part of the individual, which cements and further promotes inequality in society. In demographic change, as has been pointed out with regard to social capital, the reduction of the population and the aging of a society can in many countries lead to a loss of opportunities for young people; in learning capital in contrast there may be the opportunity for more equity. The high cost pressures of an aging society require an active

<sup>1</sup> See for example OECD (2010a, 2011).

<sup>2</sup> On this, see for example OECD (Table A 7.1) under <http://www.oecd.org/edu/eag2010>.

society in which the workers produce high values through skilled labor. This will only be possible through a significant expansion of learning capital. The more success there is here in not merely sacrificing the use values of education to practical applications for the economy but also in offering a relatively broad education, the more society could profit from this. If we miss this opportunity, increasingly more skilled and working people have to support the old as well as unskilled younger people, which will run up against significant limits in terms of burdens.

As in the other chapters, we may also consider the consequences here of learning capital for important areas of life:

- *Income*: learning capital directly contributes to securing income insofar as it functions as a prerequisite for entry into and advancement in jobs as well professions and self-employment. Society fundamentally expects people to participate in school and further education and training, which it also offers free or at a cost depending on the country. The less a state makes provisions for the creation of common and widely distributed learning capital, the stronger educational inequality will be in comparison with other countries that do make such provisions.
- *Unemployment and employment*: people who lack learning capital may not be able to find work or may more easily fall into long periods of unemployment. At the same time, low learning capital increases the likelihood of backup, part time, and temporary work, which are generally poorly paid. The resulting significantly lower income is also associated with higher dissatisfaction and high social costs for society.
- *Opportunities for social mobility*: learning capital facilitates upward mobility, for example in a new professional field as well as in changes in orientations that allow one to adapt flexibly to changing market dynamics. And low learning capital often only can be used in the low-wage sector and for simple work. In the context of globalization, such work is in much less demand in industrialized countries.
- *Opportunities for consumption and housing*: learning capital is above all an opportunity for people who through the economic, social, and cultural conditions of their family are less favorably positioned than others to participate in consumption and better housing and living conditions. The capitalization of education, however, implies that more and more individual contributions on the part of families are becoming a prerequisite for the acquisition of sufficient learning capital. As a democratic state, the state is responsible for not cementing the divide between people in the direction of sustained educational inequality as well as for not letting consumption on the part of large parts of the population sink so low that it could negatively restrain the economy overall.

Summing up the considerations in this chapter, there are three scenarios that best capture individual dealings with learning capital:

- 1) *The ownership scenario*: greater learning capital arises particularly through parasitic participation (socialization in the family home, educational level of the parents) and cultural and social appropriations in the family. The level of education achieved is generally seen in families as a necessary acquisition that must be defended and transferred to the children. This, however, happens only through personal commitment, i.e., the transfer is not always secure, although it is statistically successful in the majority of cases. The owners of such capital have less interest in the upward mobility of circles that do not have such possessions, and they often defend their property with claims about talent and performance in order to minimize the competition.

For these people, it becomes a question of the degree to which classes with less education or less property is given the opportunity to participate sufficiently in education and training and to be included in heterogeneous learning groups through elementary school so that the overall level of education can be raised to produce more equity and equality of opportunity.

- 2) *The upward-mobility scenario*: because learning capital always requires individual interest and effort, it constantly happens that upward-mobility from lower educational classes to those with higher education is possible. If someone wants to acquire learning capital in unfavorable conditions, this requires help that is associated in one way or another with social, cultural, or body capital. Even the greatest talent is useless if it is never discovered. And a special ability will never be realized if it is not supported. As with the acquisition of social capital, for upwardly mobile people, societies that are open and permeable and rather flat in terms of social hierarchy are better off than societies that are strongly exclusive or exclusionary in terms of education and social circles (e.g. Scandinavian countries).

The upwardly mobile themselves always have to do more than others in order to prevail in competition with others. It is thus important for them to find positive role models and supporters that provide assistance for them.

- 3) *The uncertainty scenario*: learning capital is subject to strong changes and thus high degrees of uncertainty. The highest possible degrees or occupational training and university degrees at a reasonable cost are essential for learning capital. Their significance and effectiveness are, however, connected with the demand for or overcrowding of certain occupational fields. Communicative, cooperative, and linguistic skills combined with a high degree of self-organization, persistence, good management of time, multiple skills, and a good attitude in particular embody an ideal

habitus in which learning capital provides a basis for professional success and social, cultural, and body capital enrich it. Low-skill forms of education in particular prevent the formation of good use values for learning capital. And the lack of use values in competition with others reinforces the precariousness and insecurity of a life that relies on the social services and achievements of society but can never secure them permanently. A group of highly skilled people who have a high use value for possible learning capital but who cannot or will not convert this use value into an exchange value shows that the market in capitalism is always unpredictable and thus produces arbitrary effects even for the individual planning of the implementation of one's own skills and qualifications.